Natural Resources Canada

2016-17

Report on Plans and Priorities

The Honourable James Gordon Carr, P.C., M.P.
Minister of Natural Resources

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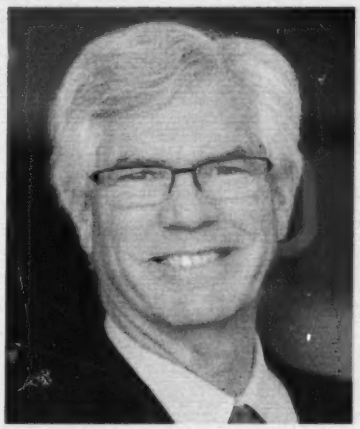
Minister's Message



It gives me great pleasure to present to you the *2016–17 Report on Plans and Priorities (RPP)* for Natural Resources Canada. I am proud to be part of the Government of Canada as our country embarks on a new era of openness, inclusion and innovation. We promised a responsible, transparent fiscal plan to deliver on our commitments — and we expect Canadians to hold us accountable.

Canada has enormous natural wealth, including significant resources of renewable and non-renewable energy, massive tracts of forest and abundant minerals and metals. In 2014, natural resource industries directly and indirectly accounted for 20 percent of Canada's gross domestic product and more than half of Canada's total exports — $259 billion. Natural resources are a key source of jobs across Canada, with roughly 1.8 million people employed either directly in the resource sectors themselves or indirectly through the purchase of goods and services from supporting industries such as manufacturing and engineering. Maintaining this contribution to our long-term prosperity depends on getting our natural resources to market in sustainable ways.

As Minister of Natural Resources, my overarching goal is to ensure that our resource sectors remain a source of jobs, prosperity and opportunity in a world that values sustainable practices. To achieve this goal, first and foremost, we need your trust.

Earning your trust means operating in an open and transparent way; reporting to you on our progress against commitments; assessing our effectiveness; and re-aligning resources with key priorities. Earning your trust also means inclusiveness: working collaboratively and engaging meaningfully with provinces and territories, Indigenous peoples, municipalities and communities, industry and environmental groups. I am committed to renewing these relationships and those with our closest allies, the United States and Mexico.

By strengthening these relationships, we can achieve great things. My mandate from the Prime Minister is clear and public. I am committed to advancing a comprehensive Canadian Energy Strategy; forging a North American clean energy and environment agreement; achieving the Mission Innovation goal of doubling support for clean energy R&D; modernizing the National Energy Board; and creating an environmental assessment process that lives up to Canadians' expectations. I am also committed to delivering on the core priorities of the department, including the safety and security of Canadians, addressing resource-related threats and emergencies and collaborating with other departments on priorities such as Open Government.

This RPP provides information on how the department will support the Government on achieving our agenda in the coming year, and I am fully confident that Natural Resources Canada is prepared to successfully support me and work with our partners inside and outside

government to deliver for Canadians. However, given our commitment to more effective reporting, this year's report will be the final submission using the existing reporting framework.

The Prime Minister and the President of the Treasury Board are working to develop new, simplified and more effective reporting processes that will better allow Parliament and Canadians to monitor our government's progress on delivering real change to Canadians. In the future, NRCan's reports to Parliament will focus more transparently on how we are using our resources to fulfil our commitments and achieve results for Canadians.

These new reporting mechanisms will allow Canadians to more easily follow our department's progress toward delivering on our priorities, which were outlined in the Prime Minister's mandate letter to me (available here).

This RPP is limited to 2016–17, the first year of this government's mandate. However, I assure you that our plans are focused on a long-term vision for Canada as an economic and environmental powerhouse — one that develops its natural resources in the most transparent, responsible way possible.

I look forward to working with my colleagues at NRCan and the many individuals, groups, governments and companies across the country as we make this vision a reality.

The Honourable Jim Carr, P.C., M.P.
Minister of Natural Resources

Section I: Organizational Expenditure Overview

Organizational Profile

Minister: The Honourable James Gordon Carr, P.C., M.P.

Deputy Head: Bob Hamilton

Ministerial Portfolio[1]:

- Atomic Energy of Canada Limited[i] (AECL);
- National Energy Board[ii] (NEB);
- Canadian Nuclear Safety Commission[iii] (CNSC);
- Canada-Newfoundland and Labrador Offshore Petroleum Board[iv] (CNLOPB);
- Canada-Nova Scotia Offshore Petroleum Board[v] (CNSOPB);
- Northern Pipeline Agency[vi] (NPA); and
- Energy Supplies Allocation Board (ESAB) (inactive).

Year established: 1994

Main legislative authorities:

- *Department of Natural Resources Act*[vii], S.C. 1994, c. 41
- *Forestry Act*[viii], R.S.C., 1985, c. F-30
- *Resources and Technical Surveys Act*[ix], R.S.C., 1985, c. R-7

[1] On November 4, 2015, an Order-in-Council designated the Minister of Industry (now the Minister of Innovation, Science and Economic Development) as the Minister for the purposes of the *Canada Foundation for Sustainable Development Technology Act*. As a result, resources allocated to this organization will be transferred to Innovation, Science and Economic Development Canada, thereby, reducing NRCan financial resources. Until the transfer is complete, NRCan will continue to disburse funds from its reference levels toward both the SDTC's NextGen Biofuels Fund and the SDTC Tech Fund. These disbursements will remain equally shared between NRCan and ECCC, with each department reporting its shares in its respective RPP and DPR.

Organizational Context

Raison d'être

NRCan works to improve the quality of life of Canadians by ensuring that our natural resources are developed sustainably, providing a source of jobs, prosperity and opportunity, while preserving our environment and respecting our communities and Indigenous People.

Responsibilities

The Minister of Natural Resources has responsibilities in relation to more than 30 acts of Parliament. The Minister's core powers, duties and functions are set forth in the *Department of Natural Resources Act*, the *Resources and Technical Surveys Act* and the *Forestry Act*. The Department also works in areas of shared responsibilities with provinces, which include the environment, public safety, economic development, science and technology, and consultations with Indigenous Peoples.

To fulfil its responsibilities, the Department relies on a number of instruments (e.g. policy, regulation, statutory transfers, grants and contributions) and key activities (e.g., science and technology, partnerships and communications).

NRCan has offices and laboratories across the country. About one third of its employees are located in the National Capital Region, with the remainder being distributed from Atlantic Canada, through Quebec and Ontario, to the Western and Pacific Regions and Northern Canada.

Strategic Outcomes and Program Alignment Architecture

Strategic Outcome 1: **Canada's Natural Resource Sectors are Globally Competitive**

Program 1.1: Market Access and Diversification

Sub-Program 1.1.1: Mineral and Metal Markets Access and Diversification

Sub-Program 1.1.2: Forest Products Market Access and Diversification

Sub-Program 1.1.3: Energy Market Access and Diversification

Program 1.2: Innovation for New Products and Processes

Sub-Program 1.2.1: Mining Innovation

Sub-Program 1.2.2: Forest Sector Innovation

Sub-Program 1.2.3: Geospatial Innovation

Program 1.3: Investment in Natural Resource Sectors

Sub-Program 1.3.1: Mineral Investment

Sub-Program 1.3.2: Targeted Geoscience Initiative

Sub-program 1.3.3: Geo-Mapping for Energy and Minerals

Sub-program 1.3.4: Geoscience for New Energy Supply

Sub-program 1.3.5: Major Projects Management Office Initiative

Program 1.4: Statutory Programs – Atlantic Offshore

Strategic Outcome 2: Natural Resource Sectors and Consumers are Environmentally Responsible

Program 2.1: Energy-Efficient Practices and Lower-Carbon Energy Sources

Sub-Program 2.1.1: Renewable Energy Deployment

Sub-Program 2.1.2: Support for Clean Energy Decision-Making

Sub-Program 2.1.3: Alternative Transportation Fuels

Sub-Program 2.1.4: Energy Efficiency

Program 2.2: Technology Innovation

Sub-Program 2.2.1: Materials for Energy

Sub-Program 2.2.2: Green Mining

Sub-Program 2.2.3: Clean Energy Science and Technology

Program 2.3: Responsible Natural Resource Management

Sub-Program 2.3.1: Forest Ecosystem Science and Application

Sub-Program 2.3.2: Groundwater Geoscience

Sub-program 2.3.3: Environmental Studies and Assessments

Sub-program 2.3.4: Radioactive Waste Management

Sub-program 2.3.5: Geospatial Information for Responsible Natural Resource Management

Strategic Outcome 3: Canadians have Information to Manage their Lands and Natural Resources, and are Protected from Related Risks

Program 3.1: Protection for Canadians and Natural Resources

Sub-Program 3.1.1: Explosives Safety and Security

Sub-Program 3.1.2: Materials and Certification for Safety and Security

Sub-Program 3.1.3: Forest Disturbances Science and Application

Sub-Program 3.1.4: Climate Change Adaptation

Sub-Program 3.1.5: Geohazards and Public Safety

Program 3.2: Landmass Information

Sub-Program 3.2.1: Essential Geographic Information

Sub-Program 3.2.2: Canada's Legal Boundaries

Sub-Program 3.2.3: Polar Continental Shelf Logistics Support

Sub-Program 3.2.4: United Nations Convention on the Law of the Sea

Program 4.1: Internal Services

Organizational Priorities

For 2016-17, the Department's focus will be on the five key commitments laid out in the Prime Minister's mandate letter (available here) to the Minister of Natural Resources:

Planned Initiatives[2]

Canadian Energy Strategy

NRCan will work with the provinces and territories on the Canadian Energy Strategy, with the objectives of helping to protect Canada's energy security, while supporting economic growth, encouraging energy efficiency and bringing cleaner, renewable energy onto a smarter electricity grid.

Alignment: 1.1.3 and 4.1

National Energy Board Modernization

NRCan is taking steps to modernize the National Energy Board (NEB), to ensure that its composition reflects regional views and that it has sufficient expertise in fields such as environmental science, community development, and Indigenous traditional knowledge.

Alignment: 1.1.3

Environmental Assessment Processes Review

Under the leadership of Environment and Climate Change Canada (ECCC), NRCan will work with federal partners to review Canada's environmental assessment processes to regain public trust by ensuring that decisions are based on science, facts, and evidence, and serve the public's interest.

Alignment: 1.1.3, 1.3.5 and 2.3.3

Investments in Clean Technology

NRCan, in collaboration with partners, will build a strategy for investing in clean technology across Canada. This will include engaging nationally to develop measures to support clean technology producers and clean technology development and use in the natural resource sectors. It will also include implementing Mission Innovation, a new global initiative aimed at accelerating clean energy technology innovation over the next five years to address climate change, provide affordable and reliable clean energy, and promote economic growth.

Alignment: 1.1.3, 1.2 and 2.2

North American Energy Collaboration

NRCan will work in partnership with the United States and Mexico with the objective of strengthening and advancing continental clean energy cooperation, in support of an overarching ambitious North American clean energy and environment agreement.

Alignment: 1.1.3

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[2] The start date for these initiatives is 2015-16. Target end dates will be established based on engagement with partners and stakeholders, and Cabinet discussions.

NRCan also delivers results for Canadians on its legislative mandate (described here) and a range of important issues including:

- Working with partners to restore public confidence in developing and bringing natural resources to market;
- Innovating to optimize resource potential and to support Canada's transition to a low-carbon economy;
- Leveraging NRCan's expertise to maintain public safety and security; and
- Enabling NRCan to be a high-performing organization that is innovative and collaborative in delivering on its mandate.

Further details are available in **Section II: Analysis of Programs by Strategic Outcome.**

Risk and Opportunity Analysis

Natural resources are key contributors to Canada's economic performance, directly and indirectly accounting for about 20% of Canada's nominal gross domestic product (GDP). The sector is a key source of jobs across Canada, directly and indirectly accounting for 1.8 million jobs. Valued at $259 billion in 2014, natural resources account for approximately half of Canada's merchandise exports.

Natural resources are highly-traded commodities and, in most cases, prices are set by global markets. Energy, mineral and metal prices have declined recently, generally as result of oversupply in global markets.

- Global prices for crude oil and liquefied natural gas prices have fallen by over 50% since June 2014.
- Mineral & metal prices have been on a downward trend since 2011.

These price changes have created challenges for Canada's natural resource sector. For example, investment has declined considerably, resulting in significant layoffs. Given the importance of natural resources in Canada's economy, a slowdown has spillover effects on national, provincial and territorial economies.

Looking ahead, commodity prices are expected to remain low in the near term and rise to 2020 and beyond. Of note, despite low oil prices, Canadian production is forecast to grow as projects currently under construction continue to move ahead.

Through its policies, regulations and programs, NRCan (on behalf the Government of Canada) works with various stakeholders to help mitigate these effects, inform Canadians, and ensure policy choices are based on a complete understanding.

RISK: Climate Change

Canada's actions on climate change will have a direct impact on the country's ability to sustainably develop and export resources. Canada's trading partners want reassurance that the country has a plan to meet its domestic and international obligations (2015 Paris Climate Change Conference) and to facilitate the transition to a low-carbon economy. Measures to mitigate and adapt to future climate change are thus required to protect or increase market access.

Link to Program Alignment Architecture

- Canada's Natural Resource Sectors are Globally Competitive
- Natural Resource Sectors and Consumers are Environmentally Responsible
- Canadians have Information to Manage their Lands and Natural Resources, and are Protected from Related Risks

Risk	Risk Response Strategies
If Canada's actions to meet international climate change commitments are insufficient and if Canada fails to keep pace in adapting to climate change, then the competitiveness of some of Canada's natural resource sectors could be threatened, including their ability to access foreign markets.	In 2016-17, NRCan's risk response will include: • Advancing North American energy collaboration • Bringing clean, renewable energy onto a smarter electricity grid • Supporting provincial and territorial energy efficiency programs through NRCan's certification and benchmarking systems • Improving energy performance standards under the *Energy Efficiency Act* • Pursuing domestic and international partnerships in RD&D in order to advance climate change objectives • Providing geoscience knowledge products to inform adaptation solutions for transportation and community infrastructure in the North • Ensuring the department implements the climate change adaptation requirements as defined in the Federal Adaptation Policy Framework

RISK: Energy Infrastructure

A lack of public trust in the federal regulatory regime and environmental assessments limits Canada's ability to bring energy resources to domestic and international markets (e.g., crude oil, petroleum products, natural gas and electricity).

Canadians who live near the resources and the transportation infrastructure and Indigenous communities whose rights could be potentially impacted by new infrastructures deserve assurance that potential environmental impacts will be well identified and managed, and that the benefits of major resource projects will create shared prosperity.

If not addressed, the lack of public trust could lead to revenue and job losses as well as lower economic growth.

Link to Program Alignment Architecture

- Canada's Natural Resource Sectors are Globally Competitive

Risk	Risk Response Strategies
If the public does not trust in Canada's ability to expand its infrastructure in a safe and environmentally sound manner, then Canada's ability to increase production and diversify markets may be limited.	In 2016-17, NRCan's risk response will include: • Partnering with provinces and territories to develop a Canadian Energy Strategy • Supporting the review of environmental assessment processes • Implementing a Transition Strategy for Major Resource Projects • Modernizing the National Energy Board • Convening relevant stakeholders and making science available

RISK: Hazards and Emergency Management

Public confidence in Canada's ability to respond to natural and human-induced emergency events involving critical infrastructure is also important, should such an incident occur. Public tolerance is low, whether for risks related to safety and security of existing or new infrastructure or for risks related to resource development activities.

Canadians, and in particular Indigenous Peoples who live near the resources, need to be reassured that the country has the knowledge and effective emergency management practices in place to protect public health and safety and the environment while pursuing economic development.

Link to Program Alignment Architecture

- Canada's Natural Resource Sectors are Globally Competitive
- Canadians have Information to Manage their Lands and Natural Resources and are protected from Related Risks

Risk	Risk Response Strategies
If Canada's measures to mitigate, respond to, and recover from, in a timely and effective manner, natural and anthropogenic (human-induced) emergency events involving critical infrastructure are insufficient, there could be significant impacts on Canadian public health and safety, the environment, the economy and public confidence.	NRCan has identified a series of measures to mitigate this risk. In 2016-17, it will strengthen its risk responses by: • Strengthening Canada's pipeline safety regime by implementing new prevention, preparedness and response, and liability and compensation measures • Modernizing the safety and security regime for Canada's offshore and nuclear energy industries • Strengthening offshore emergency preparedness • Contributing to development of a comprehensive action plan that allows Canada to better predict, prepare for, and respond to natural disasters • Enhancing earthquake monitoring • Increasing infrastructure protection against cyber threats

RISK: Clean Innovation

The global market for clean technology is expected to reach more than US$2.5 trillion by 2022. Countries such the US, Germany and China are making significant public investments in clean technology and putting in place targeted policies to support their industries.

Canadian companies have clean technologies and expertise that could be promoted domestically and internationally. To create a supportive environment to help them to further grow and to position the country as a leader in the clean technology market, the Government of Canada will make strategic investments and provide more support for companies seeking to access and expand into key markets.

Link to Program Alignment Architecture

- Canada's Natural Resource Sectors are Globally Competitive
- Natural Resource Sectors and Consumers are Environmentally Responsible
- Canadians have Information to Manage their Lands and Natural Resources and are protected from Related Risks

Risk	Risk Response Strategies
If Canada fails to anticipate or respond to increased demand for more innovative approaches to energy, mining and forestry sector challenges, it will struggle to remain competitive and to take advantage of global market opportunities.	NRCan has identified a series of measures to seize these opportunities. In 2016-17, it will strengthen its risk responses by: • Rolling out initiatives related to Mission Innovation • Advancing North American energy collaboration • Pursuing partnerships on RD&D in energy, green mining and forestry • Investing in clean technology producers, providing more support for emerging clean technology manufactures and exports • Supporting innovation and the use of clean technologies in the resource sector (energy, mining, forestry) • Fostering innovation related to rare earth elements and chromite • Pursuing new wood-based products

Planned Expenditures

Budgetary Financial Resources (dollars)

2016-17 Main Estimates	2016-17 Planned Spending	2017-18 Planned Spending	2018-19 Planned Spending
1,592,518,753	1,592,518,753	1,420,420,537	1,417,806,350

Information on changes from 2016-17 to 2018-19 can be found in the narrative following the Budgetary Planning Summary for Strategic Outcomes and Programs Table.

Human Resources (Full-Time Equivalents [FTEs])

2016-17	2017-18	2018-19
3547	3454	3435

FTEs are extracted from the financial system and meet the following definition as set out by Treasury Board Secretariat: A measure of the extent to which an employee represents a full person-year charged against a departmental budget. Full-time equivalents are calculated as a ratio of assigned hours of work to scheduled hours of work. Scheduled hours of work are set out in collective agreements.

Budgetary Planning Summary (dollars)

Strategic Outcomes, Programs and Internal Services	2013–14 Expenditures	2014–15 Expenditures	2015–16 Forecast Spending	2016–17 Main Estimates	2016–17 Planned Spending	2017–18 Planned Spending	2018–19 Planned Spending
Strategic Outcome 1: Canada's Natural Resource Sectors are Globally Competitive							
1.1 Market Access and Diversification	59,733,334	61,566,240	64,060,351	43,993,476	43,993,476	28,361,877	28,353,543
1.2 Innovation for New Products and Processes	94,093,063	71,707,214	86,490,553	96,074,981	96,074,981	55,536,596	33,047,172
1.3 Investment in Natural Resources Sectors	65,333,593	60,589,504	59,959,471	62,900,219	62,900,219	65,272,906	62,740,438
1.4 Statutory Programs – Atlantic Offshore *	795,884,721	837,746,067	489,183,203	743,336,158	743,336,158	761,960,697	806,240,682
Subtotal	**1,015,044,711**	**1,031,609,025**	**699,693,578**	**946,304,834**	**946,304,834**	**911,132,076**	**930,381,835**
Strategic Outcome 2: Natural Resource Sectors and Consumers are Environmentally Responsible							
2.1 Energy-efficient Practices and Lower-carbon Energy Sources	314,652,883	291,745,439	214,551,934	183,336,817	183,336,817	133,361,992	120,560,992
2.2 Technology Innovation	155,738,548	151,832,220	126,793,222	115,838,434	115,838,434	108,270,795	104,315,546
2.3 Responsible Natural Resources Management	282,047,031	267,570,932	114,957,220	29,619,508	29,619,508	28,958,607	28,959,115
Subtotal	**752,438,462**	**711,148,591**	**456,302,376**	**328,794,759**	**328,794,759**	**270,591,394**	**253,835,653**
Strategic Outcome 3: Canadians have Information to Manage their Lands and Natural Resources, and are Protected from Related Risks							
3.1 Protection for Canadians and Natural Resources	65,535,095	65,692,439	63,176,272	57,808,743	57,808,743	49,858,500	48,894,225

3.2 Landmass Information	73,828,231	78,469,116	75,953,499	75,092,662	75,092,662	51,156,481	47,898,096
Subtotal	**139,363,326**	**144,161,555**	**139,129,771**	**132,901,405**	**132,901,405**	**101,014,981**	**96,792,321**
Internal Services Subtotal	**184,198,094**	**162,499,616**	**191,428,122**	**184,517,755**	**184,517,755**	**137,682,086**	**136,796,541**
Total	**2,091,044,593**	**2,049,418,787**	**1,486,553,847**	**1,592,518,753**	**1,592,518,753**	**1,420,420,537**	**1,417,806,350**

*Statutory Programs – Atlantic Offshore: As per the various Atlantic Offshore Accords, the Government of Canada receives royalties for offshore oil and gas production and subsequently pays an equal amount to the provinces of Nova Scotia and Newfoundland and Labrador.

Planned spending declines by $174.7 million, or 11%, from 2016-17 to 2018-19. This is mainly attributable to:

- A decline in funding profile for several programs, the most significant of which are:
  - ecoENERGY for Renewable Power;
  - Sustainable Development Technology Canada for Sustainable Development Tech Fund[3];
  - Enhancing National Earthquake Monitoring; and,
  - United Nations Convention on the Law of the Sea (UNCLOS) – Mapping the North Pole.
- The sunsetting of some programs or initiatives in 2016-17 or 2017-18, the most significant of which are:
  - Federal Infrastructure;
  - Forest Innovation and Expanding Market Opportunities;
  - Investments in Forest Industry Transformation; and,
  - ecoENERGY for Biofuels.

[3] On November 4, 2015, an Order-in-Council designated the Minister of Industry (now the Minister of Innovation, Science and Economic Development) as the Minister for the purposes of the *Canada Foundation for Sustainable Development Technology Act*. As a result, resources allocated to this organization will be transferred to Innovation, Science and Economic Development Canada, thereby, reducing NRCan financial resources. The above financial table does not reflect this reduction. Until the transfer is complete, NRCan will continue to disburse funds from its reference levels toward both the SDTC's NextGen Biofuels Fund and the SDTC Tech Fund. These disbursements will remain equally shared between NRCan and ECCC, with each department reporting its shares in its respective RPP and DPR.

- These decreases are partially offset by an increase under the Offshore Atlantic Accords, specifically related to agreements between the Government of Canada and the province of Newfoundland and Labrador. As the majority of payments are related to revenue, the planned spending trend fluctuates depending on a number of factors such as expected production and pricing levels.

Government decisions on the renewal of sunsetting programs would be reflected in the Department's future Budget exercises and Estimates documents.

For the explanation on variances in actual expenditures and forecasted spending between 2013-14 and 2015-16, please refer to the analysis included in the Departmental Spending Trend Graph section that follows.

Alignment of Spending With the Whole-of-Government Framework

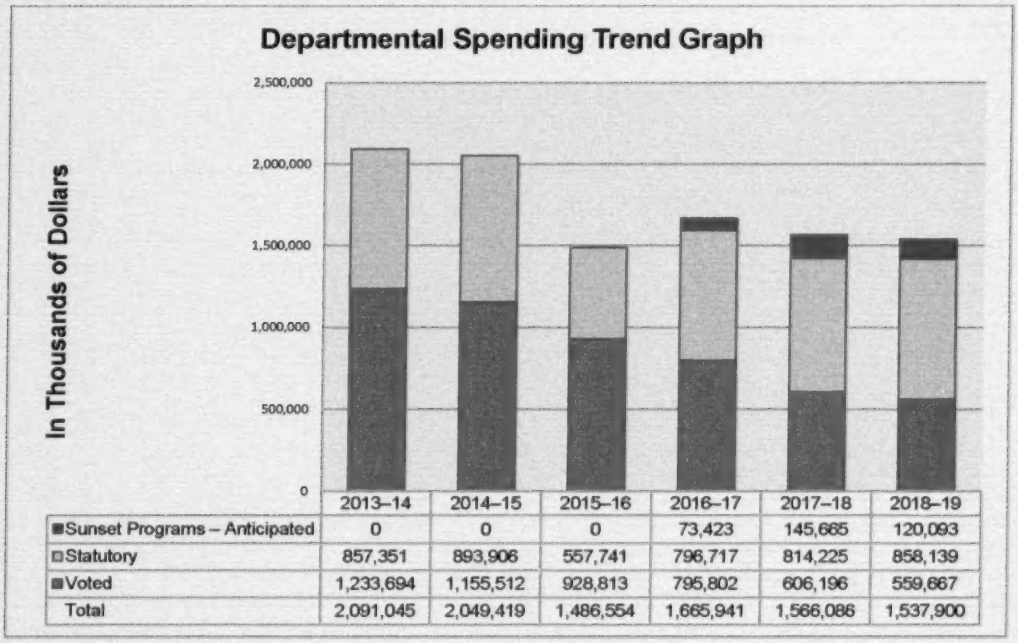
Alignment of 2016–17 Planned Spending With the Whole-of-Government Framework[x] (dollars)

Strategic Outcome	Program	Spending Area	Government of Canada Outcome	2016–17 Planned Spending
1. Canada's Natural Resource Sectors are Globally Competitive	**1.1** Market Access and Diversification	Economic Affairs	Strong Economic Growth	43,993,476
	1.2 Innovation for New Products and Processes	Economic Affairs	Strong Economic Growth	96,074,981
	1.3 Investment in Natural Resources Sectors	Economic Affairs	Strong Economic Growth	62,900,219
	1.4 Statutory Programs – Atlantic Offshore	Economic Affairs	Strong Economic Growth	743,336,158
2. Natural Resource Sectors and Consumers are Environmentally Responsible	**2.1** Energy-efficient Practices and Lower-carbon Energy Sources	Economic Affairs	A Clean and Healthy Environment	183,336,817
	2.2 Technology Innovation	Economic Affairs	A Clean and Healthy Environment	115,838,434
	2.3 Responsible Natural Resources Management	Economic Affairs	A Clean and Healthy Environment	29,619,508
3. Canadians have Information to Manage their Lands and Natural Resources, and are Protected from Related Risks	**3.1** Protection for Canadians and Natural Resources	Social Affairs	A Safe and Secure Canada	57,808,743
	3.2 Landmass Information	Social Affairs	A Safe and Secure Canada	75,092,662

Total Spending by Spending Area (dollars)

Spending Area	Total Planned Spending
Economic affairs	1,275,099,593
Social affairs	132,901,405
International affairs	-
Government affairs	-

Departmental Spending Trend



	2013–14	2014–15	2015–16	2016–17	2017–18	2018–19
Sunset Programs – Anticipated	0	0	0	73,423	145,685	120,093
Statutory	857,351	893,906	557,741	796,717	814,225	858,139
Voted	1,233,694	1,155,512	928,813	795,802	606,196	559,667
Total	2,091,045	2,049,419	1,486,554	1,665,941	1,566,086	1,537,900

For fiscal year 2013-14 and 2014-15, spending represents the actual expenditures as reported in the Public Accounts. For fiscal year 2015-16, spending represents forecasted expenditures as of the end of November 2015. For the period 2016-17 to 2018-19, spending reflects approved funding by Treasury Board to support the departmental strategic outcomes as well as anticipated renewals of some programs sunsetting during this period. Anticipated renewals are included in order to give a more reasonable picture of the future of the department, however these are subject to government's decisions to extend, reduce or enhance funding. Outcomes of such decisions will be reflected in the Department's future budget exercises and Estimates documents. The figures for anticipated renewals are not included in any other tables within this document.

As indicated in the chart above, NRCan's forecasted spending for 2015-16 is $1,487 million, a decrease of $604 million, or 29%, from 2013-14 spending of $2,091 million. This decrease is mainly due to:

- A decrease in statutory payments pursuant to the Atlantic Offshore Petroleum Accord Acts. Under these Acts, the revenues (e.g., royalties) from offshore resources are collected by the Receiver General for Canada. Once collected, NRCan transfers a like amount to Newfoundland and Labrador or Nova Scotia. Royalty revenues, in particular,

are a function of variables such as international crude oil prices and offshore oil and natural gas production and costs that fluctuate depending on global commodity markets. Correspondingly, the transfers are subject to equivalent variations in any given period.

- New initiative which began in 2015-16:
  - Federal Infrastructure

- A decrease in program spending:
  - Nuclear Legacy Liabilities Program[4]
  - Port Hope Area Initiative[5]
  - Medical Isotopes
  - Windpower Production Incentive
  - ecoENERGY for Biofuels
  - Forest Innovation and Expanding Market Opportunities

- The sunsetting of the following programs in 2014-15:
  - Clean Energy Fund
  - Satellite Stations Revitalization

As indicated in the Budgetary Planning Summary for Strategic Outcome(s) and Program(s) financial table, NRCan's planned spending for 2016-17 is $1,593 million, an increase of $106 million, or 7%, from 2015-16 forecasted spending of $1,487 million. This increase is mainly due to an increase in statutory offshore payments offset by the transfer of responsibility of the Nuclear Legacy Liabilities Program and Port Hope Area Initiative to AECL and slightly offset by the sunsetting and year-over-year variability in the funding profile of various programs.

For the explanation on variances in planned spending between 2016-17 and 2018-19, please refer to the analysis included in the previous Planned Expenditures section.

Estimates by Vote

For information on NRCan's organizational appropriations, consult the *2016-17 Main Estimates* on the Treasury Board of Canada Secretariat website.[xi]

[4] While the funding profile of the Nuclear Legacy Liabilities Program and Port Hope Area Initiative have been decreasing, a government decision has rendered the transfer of responsibility over these programs to AECL; therefore, the reference levels for these initiatives will be completely transferred to AECL as of fiscal year 2016-17.
[5] Idem.

Section II: Analysis of Programs by Strategic Outcome

This section provides information on programs that are critical to the realization of Natural Resources Canada's (NRCan) strategic outcomes and priorities for 2016-17. As part of its management agenda, NRCan is also working to make its Performance Measurement Framework more results-oriented and focused on key priorities.

More information about these programs and initiatives, as well as supporting evidence from internal evaluations and audit reports, can be found on NRCan's website.

Strategic Outcome 1: Canada's Natural Resource Sectors are Globally Competitive

Description

Canada is a major producer and exporter of natural resources. Being competitive in Canadian and foreign markets is imperative to the nation's economic growth. The objective of this Strategic Outcome (SO) is to help Canada's natural resource sectors become more globally competitive by adapting to the continuously changing conditions of success. This will be achieved by supporting the natural resource sectors to expand and diversify their markets to respond to the high demand from emerging economies, and diversify their product offerings to remain innovative and competitive.

Program 1.1: Market Access and Diversification

Description

Canada's natural resource sectors face two key barriers to market access and diversification: 1) trade and policy barriers, and 2) lack of awareness of Canada's natural resource products. The objectives of this Program are to break down those barriers and support the development and expansion of markets for Canadian natural resource products by making information available to Canadians, supporting negotiations to reduce trade barriers, and ensuring that regulations are up to date. This helps maintain natural resource sectors' access to existing markets and increases their access to new market segments.

Budgetary Financial Resources (dollars)

2016-17 Main Estimates	2016-17 Planned Spending	2017-18 Planned Spending	2018-19 Planned Spending
43,993,476	43,993,476	28,361,877	28,353,543

The decline in planned spending from 2016-17 to 2018-19 is primarily due to the expiry of budgetary spending authorities for the Expanding Market Opportunities (EMO) program in 2016-17, mostly related to the Grants & Contributions (Gs&Cs) vote. The Department will have to request funding for 2017-18 in accordance with measures proposed in Budget 2015.

Human Resources (FTEs)

2016-17	2017-18	2018-19
243	237	237

Given the nature of the decline in planned spending, there is no material fluctuation in planned FTEs from 2016-17 to 2018-19.

Performance Measurement

Expected Results	Performance Indicators	Targets	Date to Be Achieved
Natural resource sectors have increased access to existing markets	Natural resource sectors have access to markets as defined by exports of energy products, mineral and metal products and forest products	Meet or exceed baseline of ten-year average of Canada's share of United States and global imports	March 31, 2017
Natural resource sectors have increased access to new market segments	Natural resource sectors have access to new market segments as defined by exports of energy products, mineral and metal products and forest products	Meet or exceed baseline of ten-year average of Canada's share of China and India's imports	March 31, 2017

Planning Highlights

Individual sub-programs provide specific details on how key activities support expected results.

Sub-Program 1.1.1: Mineral and Metal Markets Access and Diversification

Description

Canadian producers of minerals and metals require access to export markets since domestic production exceeds domestic demand for many commodities. However, tariffs and non-tariff barriers can constrain exports, as can policies and measures that reduce demand for minerals, metals and products containing metals, and certification schemes that discriminate against Canadian producers. Through this Sub-program, NRCan administers the *Export and Import of Rough Diamonds Act* and regulations that implement Canada's international obligations under the Kimberley Process Certification Scheme, ensuring market access for Canadian diamond producers and users.

Budgetary Financial Resources (dollars)

2016-17 Planned Spending	2017-18 Planned Spending	2018-19 Planned Spending
1,605,477	1,605,477	1,605,477

Human Resources (FTEs)

2016-17	2017-18	2018-19
10	10	10

Performance Measurement

Expected Results	Performance Indicators	Targets	Date to Be Achieved
Rough diamond market access is supported through the efficient implementation of Canada's international obligations under the Kimberley Process (KP) Certification Scheme	Percentage of KP export certificates issued within one business day of the receipt of a completed and valid application	95%	March 31, 2017

Planning Highlights

Kimberley Process – Overall costs related to administering the *Export and Import of Rough Diamond Act* and managing the Kimberley Process (KP) program are expected to be aligned with previous years for 2016-17. NRCan will maintain its target of ensuring that 95% of KP

export certificates are issued within one business day of receipt of a completed and valid application.

Trade policies and negotiations – The Department, in collaboration with its federal partners, will continue to ensure that minerals and metals, as well as mining interests and perspectives are well represented in the development of domestic and international trade policies and during free trade agreements negotiations.

Sub-program 1.1.2: Forest Products Market Access and Diversification

Description

Through this Sub-program, NRCan provides:

- Financial contributions to Canadian forest industry associations to support initiatives to expand exports to international markets and increase the use of wood in North American non-residential construction;
- Financial contributions and science-based information to industry partners to support the development and dissemination of information products that promote the environmental reputation of Canada's forest sector in international markets; and
- Expertise to other federal departments in support of Canada's international negotiating positions on trade and environmental issues.

This Sub-program includes the Expanding Market Opportunities transfer payment program.

Budgetary Financial Resources (dollars)

2016-17 Planned Spending	2017-18 Planned Spending	2018-19 Planned Spending
19,566,643	5,209,337	5,209,316

The decline in planned spending from 2016-17 to 2018-19 is primarily due to the expiry of budgetary spending authorities for the EMO program in 2016-17, mostly related to the Gs&Cs vote. The Department will have to request funding for 2017-18 in accordance with measures proposed in Budget 2015.

Human Resources (FTEs)

2016-17	2017-18	2018-19
70	62	62

The decline in planned FTEs from 2016-17 to 2018-19 is related to the decline in planned spending for this sub-program; however, in a smaller proportion given only a fraction of the decline in planned spending pertains to personnel costs.

Performance Measurement

Expected Results	Performance Indicators	Targets	Date to Be Achieved
Forest industry has increased sales of Canadian wood products in international markets	Dollar value of wood product sales in targeted offshore markets (China, Korea, Japan and Europe (EU 28)) and other new emerging markets (e.g., India, Middle East)	10% increase over 2011 base year value of $3.5 billion for targeted offshore markets and $99.3 million for new emerging markets	March 31, 2017
	Diversity of markets for Canadian wood products Measure: Using the change in the values of the Herfindahl Index to measure Canada's success in diversifying its wood product exports away from one core market (i.e., US) and towards offshore markets over time	Favourable yearly average against 2011 base value of 0.397 The closer the value is to 0, the more a country (i.e. Canada) diversified its exports away from dependency on one key market	March 31, 2017
Forest industry has increased sales of Canadian wood products in new market segments	Dollar value of wood products used in non-residential construction projects built with wood as opposed to traditional means (Canada and US)	10% increase over 2011 base year value of $130.3 million	March 31, 2017

Planning Highlights

Expanding Market Opportunities program – NRCan will support forest product associations, research organizations and provincial Crown corporations to deliver market development activities that foster exports of Canadian wood products to offshore markets (e.g., China, Japan, Korea, India and Middle East) and that help increase the use of wood in non-residential, mid-rise and tall wood buildings in Canada.

International negotiations – The Department will support Canada's international negotiating positions on trade and environmental reputation issues with a particular focus on Europe, North America and Asia. It will ensure that Canada's international climate change objectives related to forests are advanced in international negotiations during the year, and will provide updated forest-related estimates to ECCC for Canada's 2017 GHG inventory report required under the United Nations Framework Convention on Climate Change (UNFCCC).

Information products – NRCan will provide financial contributions and science-based information to industry and international partners to support the development and dissemination of information products that promote the environmental reputation of Canada's forest sector in international markets.

Tall Wood Building Demonstration (TWB) Initiative – NRCan will fund research and development (R&D) activities in support of the construction of two tall wood buildings in Canada in 2016-17. Launched in 2013, the TWB is a 3-year program that is helping to foster the commercial uptake of tall wood construction in Canada.

Sub-program 1.1.3: Energy Market Access and Diversification

Description

Through this Sub-program, NRCan fosters a competitive Canadian energy sector by working with provinces and territories, and internationally, to articulate Canada's approach to the management of energy resources. It assesses and updates federal energy regulations and policies relating to offshore oil and gas, pipelines, and nuclear; engages domestically and internationally on energy issues; and provides Canadians with information on energy markets. NRCan also engages West Coast First Nations communities on issues related to energy infrastructure development, and coordinates the activities across multiple Government of Canada departments to increase First Nations involvement in this development.

Budgetary Financial Resources (dollars)

2016-17 Planned Spending	2017-18 Planned Spending	2018-19 Planned Spending
22,821,356	21,547,063	21,538,750

Human Resources (FTEs)

2016-17	2017-18	2018-19
163	165	165

Performance Measurement

Expected Results	Performance Indicators	Targets	Date to Be Achieved
Actions are taken domestically and internationally to diversify Canada's energy markets	The number of high-level (senior management) federal-provincial-territorial engagements and international bilateral and multilateral engagements with countries and organizations in key market regions (i.e. Asia-Pacific, US/Americas and Europe)	15 per year	March 31, 2017
Actions taken to identify and address non-regulatory issues that are of concern to Indigenous communities that could be impacted by the development of West Coast energy infrastructure development	Percentage of non-regulatory issues identified across BC First Nations potentially impacted by energy infrastructure development that are being (or have been) addressed through federal actions	30%	June 1, 2016
The Government of Canada's regulatory and legislative frameworks governing Canada's energy resources (e.g., offshore oil and gas) is renewed in a timely manner and continuously improved	Number of assessments and/or updates to energy regulations or legislation and/or Canada's energy regulatory or legislative frameworks	2 per year	Ongoing

Planning Highlights

This sub-program will deliver key elements of the Minister's Mandate Letter.

Federal Provincial Collaboration – NRCan will leverage and foster federal-provincial-territorial collaboration and engagement on energy in domestic and international fora, including: 1) partnering with provinces and territories to advance a **Canadian Energy Strategy**; 2) preparing for the 2016 Energy and Mines Ministers' Conference and implementing commitments made by energy Ministers; and 3) supporting the development and alignment of international activities among the federal, provincial and territorial governments.

North American Partnership – NRCan will support the development of a comprehensive North American clean energy and environment agreement by: 1) continuing to advance the Canada-US

Memorandum of Understanding on Energy Collaboration (signed in 2014); and 2) advancing the **North American Memorandum of Understanding Concerning Climate Change and Energy Collaboration,** which will focus on the six areas of: reliable, resilient and low-carbon electricity grids; modelling, deploying and accelerating innovation in clean energy technologies, including renewables; energy efficiency for equipment, appliances, industries and buildings, including energy management systems; carbon capture, use and storage; climate change adaptation and resilience; and, emissions from the oil and gas sector, including methane and black carbon.

International Energy Engagement – NRCan will support government activities to increase two-way trade and investment and build more comprehensive bilateral relationships on energy with key partners in Asia by: 1) actively participating in Ministerial dialogues, working group meetings, and support for private sector engagement involving China, India, and Japan and other Asian countries; and 2) partnering with Global Affairs Canada (GAC) to lead Canada's contribution to G7 and G20 initiatives and discussions, including G7 efforts to enhance Ukraine's energy preparedness and G20 energy initiatives and discussions held under China's G20 Presidency in 2016.

Environmental Protection & Safety and Security – NRCan will work with other responsible departments to **review Canada's environmental assessment processes** to regain public trust and modernize the National Energy Board. NRCan will establish a sound liability, legislative and regulatory regime and implement interim measures for oil and gas transportation. This will include: 1) implementing the *Pipeline Safety Act*, including advancing amendments to Damage Prevention Regulations; 2) amending the Export and Import regulatory framework; and 3) appointing arbitration committees and negotiators to settle pipeline/landowner compensation disputes.

Critical Energy Infrastructure and Cybersecurity – NRCan will develop measures and programs to enhance industry's efforts by: 1) protecting and improving the resiliency of Canada's critical energy infrastructure; 2) promoting the exchange of information and best practices among stakeholders; 3) collaborating with infrastructure owner/operations to address physical and cyber-threats through the National Energy Infrastructure Test Centre; and 4) partnering with GAC to lead Canada's contribution to G7 and G20 initiatives and discussions, including the new G7 cybersecurity work stream focused on energy sector.

Offshore – NRCan will promote a safe, efficient and environmentally-responsible offshore petroleum regime in Canada by: 1) advancing the development of permanent occupational health and safety regulations in the Atlantic offshore areas; 2) modernizing operational safety regulations across the country; 3) implementing new regulations for administrative monetary

penalties, financial requirements and cost recovery; and 4) advancing the Canada-Quebec joint management accord.

Tanker Moratorium - Along with other departments, NRCan will support Transport Canada (TC) in its efforts to fulfil the Government's commitment to formalize a moratorium on crude oil tanker traffic on British Columbia's North Coast.

Lower Churchill Projects – NRCan will effectively manage the loan guarantee for the Lower Churchill River hydroelectric projects.

Indigenous Engagement – Indigenous communities are important partners in the development of natural resources. Building on the relationships established with these communities through its office in Vancouver, NRCan will continue to offer a single window to engage with the Government of Canada on west coast energy infrastructure development. Through this engagement, federal departments will better understand their perspectives, identify concrete actions to address their interests and concerns, and seek to enhance their participation in economic and environmental protection projects.

Program 1.2: Innovation for New Products and Processes

Description

Optimizing the use of Canada's natural resources and the processes by which they are developed would improve the productivity and competitiveness of natural resource sectors. The objective of this Program is to maximize productivity and competitiveness by encouraging the adoption of new technologies and processes and the development of new products. These objectives are achieved by conducting and supporting research and development and by delivering frameworks and policies for, and demonstrations of, new applications, technologies, processes, and products.

Budgetary Financial Resources (dollars)

2016-17 Main Estimates	2016-17 Planned Spending	2017-18 Planned Spending	2018-19 Planned Spending
96,074,981	96,074,981	55,536,596	33,047,172

The decline in planned spending from 2016-17 to 2018-19 is primarily due to the Forest Innovation Program (FIP) and the Investments in Forest Industry Transformation (IFIT) program. Planned spending reflects the expiry of budgetary spending authorities for FIP under operating and Gs&Cs votes, which had been approved up to 2016-17, and the sunsetting of IFIT in 2017-18, mostly reducing the Gs&Cs vote. The Department will have to request funding for FIP for 2017-18 in accordance with measures proposed in Budget 2015.

Human Resources (FTEs)

2016-17	2017-18	2018-19
296	273	267

The decline in planned FTEs from 2016-17 to 2018-19 is related to the decline in planned spending for this sub-program, mainly related to the decline in personnel costs associated to FIP.

Performance Measurement

Expected Results	Performance Indicators	Targets	Date to Be Achieved
Natural resource sectors increase production of new products and processes	Number of new products and processes resulting from NRCan information	5 per year	March 31, 2017
	R&D expenditures in natural resource sectors, specifically total intramural R&D expenditures in energy, mining and forest sectors	Favourable 10-year trend	March 31, 2017
Methodologies, policies, strategies, plans and standards are collaboratively used by governments and private sector organizations in the development of new innovative and value-added geospatial applications	Number of formally adopted methodologies, policies, strategies, plans and standards generated from collaborative activities and participation	Increase in the number of methodologies, polices, strategies, plans and standards generated from collaborative activities and participation in 2016-17 and compared to the 2015-16 baseline year	March 31, 2017

Planning Highlights

Individual sub-programs provide specific details on how key activities support expected results.

Sub-program 1.2.1: Mining Innovation

Description

Through this Sub-program, NRCan encourages mining innovation by using a collaborative approach to share financial risks with industry partners, while ensuring that program priorities are aligned with business needs. NRCan also conducts coordinated research to address priorities identified by stakeholders, such as technologies to safely and profitably develop and operate deeper mines, and to process ores, concentrates and recyclable materials that cannot be processed with commercially available technologies. As well, it creates opportunities to develop the next generation of professionals, and supplies certified reference materials to service providers and

industry analytical laboratories, which rely on such reference materials to ensure the quality of data that inform mineral investment decisions, determine product value, drive process improvement, and improve confidence in environmental monitoring.

Budgetary Financial Resources (dollars)

2016-17 Planned Spending	2017-18 Planned Spending	2018-19 Planned Spending
2,067,965	2,067,965	2,067,965

Human Resources (FTEs)

2016-17	2017-18	2018-19
47	47	47

Performance Measurement

Expected Results	Performance Indicators	Targets	Date to Be Achieved
Technology developers increase demonstration of innovative mining and processing technologies	Number of demonstration projects	2 over 5 years	March 31, 2017

Planning Highlights

Rare earth element (REE) and chromite – In consultation with industry stakeholders, academics and international partners, NRCan will identify knowledge gaps, develop process flow sheets and assess market opportunities for REE and chromite processing. Furthering collaborations and R&D in this area will help contribute to climate change commitments as REE's are used in the development of clean technologies and can help reduce GHG emissions.

Increased mining operations' productivity – NRCan will pursue its work on the evaluation of the potential of synthetic ropes for replacing standard steel wire ropes for hoisting used in mining operations, which will permit mining operations to operate at a greater depth and will enhance productivity. In 2015-16, NRCan began conducting testing in a laboratory setting and in 2016-17 it will begin in-situ testing at an industrial site with an operating mine. NRCan will also take steps to formalize the technology with provincial regulators.

Sub-program 1.2.2: Forest Sector Innovation

Description

Canada's forest sector has experienced a decrease in its market share as a result of changing global and regional demand and increasing competition. To regain its competitive position and compete profitably in a wider array of markets, the sector is focusing on innovation (i.e., research, development and deployment) and moving towards a more diversified and innovative mix of higher-value specialized products, processes and technologies. Through a forest sector innovation system sector partners can align and pursue common innovation priorities. Through this Sub-program, NRCan brings together various players in the forest sector innovation system – governments, industry, communities (Indigenous and non-Indigenous), and research institutions – to focus on collectively identifying, funding and delivering on the innovation priorities of the sector. NRCan also conducts research with, and provides financial contributions to, FPInnovations, other forest sector research partners, and eligible forest product companies to research, develop and deploy new products, processes and technologies. This Sub-program includes work on the Genomics Research and Development Initiative, the Canadian Regulatory System for Biotechnology, as well as the following transfer payment programs: Forest Innovation Program, Forest Research Institutes Initiative, the Investments in Forest Industry Transformation, and the Aboriginal Forestry Initiative.

Budgetary Financial Resources (dollars)

2016-17 Planned Spending	2017-18 Planned Spending	2018-19 Planned Spending
85,497,856	44,959,471	22,470,047

The decline in planned spending from 2016-17 to 2018-19 is primarily due to the FIP and IFIT programs. Planned spending reflects the expiry of budgetary spending authorities for FIP under operating and Gs&Cs votes, which had been approved up to 2016-17, and the sunsetting of IFIT in 2017-18, mostly reducing the Gs&Cs vote. The Department will have to request funding for FIP for 2017-18 in accordance with measures proposed in Budget 2015.

Human Resources (FTEs)

2016-17	2017-18	2018-19
207	185	178

The decline in planned FTEs from 2016-17 to 2018-19 is related to the decline in planned spending for this sub-program, mainly related to the decline in personnel costs associated to FIP.

Performance Measurement

Expected Results	Performance Indicators	Targets	Date to Be Achieved
NRCan, industry, provinces and academia develop new technologies which lead to higher-value Canadian forest products and processes to create a better competitive position for the Canadian forest sector	Number of new higher-value Canadian forest products or processes that are derived from new technologies developed	10 by the end of March 31, 2018	March 31, 2018
Indigenous communities have the knowledge needed to take advantage of emerging economic development opportunities	Number of new economic development projects facilitated, brokered, and/or developed with NRCan knowledge and funding	8 new projects annually, facilitated, brokered, and/or developed with NRCan knowledge and funding	March 31, 2017
Forest sector innovation is accelerated by the endorsement of an annual research plan by the forest sector innovation system	Annual research plan endorsed by the FPInnovations National Research Advisory Committee (NRAC)	1 endorsed research plan	March 31, 2017

Planning Highlights

R&D – NRCan will aim to foster increased R&D in the sector through the development of strategic partnerships with the larger national innovation system (e.g., National Research Council). It will support the development of new products (such as bio-energy, bio-products, bio-materials and the next-generation of building materials) or uses for wood as well as innovative technologies through the IFIT program. It is anticipated that several funded projects will be completed and will result in new products being introduced to the market (e.g., lightweight panels, residential siding, and lignin-based products). As well, new projects are anticipated to start that will result in the production of new biochemicals, renewable fuels and solid wood products.

Pre-commercial R&D – NRCan will also support pre-commercial R&D on priority areas identified by the industry through the Forest Innovation Program (FIP) and the Forest Research Institute Initiative (FRII). Priorities for 2016-17 include applications for novel biomaterials such as lignins and cellulosic nano-materials; innovative coating for wood products; and decision support tools for value-maximisation.

Aboriginal Forestry Initiative – NRCan will continue to support greater Indigenous participation in natural resource development opportunities across Canada. This work will

include securing additional funding through the Strategic Partnerships Initiative to provide funds to recipients for approved projects. NRCan will also engage with natural resource development stakeholders to raise awareness of the potential for collaboration with Indigenous communities.

Sub-program 1.2.3: Geospatial Innovation

Description

Natural resource sectors, such as those engaged in the extraction of valuable minerals, oils, gases and other geological or forest-related material, rely on location-based information to make well-informed production and business decisions. This Sub-program plays a vital leadership role in collaborating with federal, provincial, territorial, and private sector partners to establish the required policies, standards, governance and institutional arrangements necessary to support the provision of location-based information. This includes the GeoConnections transfer payment program, a national partnership initiative designed to facilitate access to and the use of geospatial information in Canada, including data, standards, policies, technologies and partnerships. This Sub-program also develops innovative techniques to transform Earth Observation data into applicable geographic information and provides expertise on the design, calibration and validation of new Earth Observation sensors and missions. The resulting data, technology and knowledge base delivers innovative, cost-effective geospatial science, technology, policy and applications solutions that are built once and used many times.

Budgetary Financial Resources (dollars)

2016-17 Planned Spending	2017-18 Planned Spending	2018-19 Planned Spending
8,509,160	8,509,160	8,509,160

Human Resources (FTEs)

2016-17	2017-18	2018-19
42	41	42

Performance Measurement

Expected Results	Performance Indicators	Targets	Date to Be Achieved
Government and other program stakeholders can access a suite of modern, comprehensive Geospatial assets to support decision-making, reporting, operations and research	Number of primary knowledge products released and accessible	10 per year	March 31, 2017
	Number of newly added data sets and web mapping services available via the Federal Geospatial Platform (FGP)	50 per year	March 31, 2017
Mechanisms and resources are in place to enable program stakeholders to collaboratively address shared geospatial challenges and adopt common geospatial approaches	Number of federal departments and agencies actively contributing to FGP data assets and/or platform technology	10 per year	March 31, 2017

Planning Highlights

Increased access to geospatial data and tool – NRCan will implement an interface between the Federal Geospatial Platform (FGP) and the open government portal and will also put in place an operating model to support post-project operations. The Department will also continue to evolve its geospatial data and web services delivery, as new geospatial data becomes available.

Provision of geospatial expert advice – The Department will continue to provide geospatial expert advice, knowledge, and tools for critical decision-making and economic growth.

Expansion of the Canadian Geospatial Data Infrastructure – NRCan will ensure the advancement of enabling interoperability, accessibility and use of geospatial information through partnerships and collaborations with other federal departments, as well as industry, provincial, territorial and municipal governments, international stakeholders, non-profits and academia.

Program 1.3: Investment in Natural Resource Sectors

Description

Investing in the development of natural resources is costly and risky due to inherent uncertainties in the potential economic viability of natural resource projects. Many factors must be considered when deciding whether to develop a natural resource project. In some cases, limited information may make it difficult for investors and/or companies to assess potential opportunities. The

objective of this Program is to encourage investment in the natural resource sectors by increasing industry's knowledge of opportunities, regulations and obligations. This ensures that a more accurate assessment of the expected benefits of an investment can be made and subsequently compared to its costs and risks, thereby allowing for a more comprehensive investment decision. This objective is achieved by providing funding and information on the factors that determine the potential economic viability of natural resource projects.

Budgetary Financial Resources (dollars)

2016-17 Main Estimates	2016-17 Planned Spending	2017-18 Planned Spending	2018-19 Planned Spending
62,900,219	62,900,219	65,272,906	62,740,438

The growth in planned spending from 2016-17 to 2017-18 is primarily due to the increasing funding profile of the Targeted Geoscience Initiative Phase V. The decline in planned spending from 2017-18 to 2018-19 is primarily due to the decreasing funding profile of the Geo-Mapping for Energy and Minerals program.

Human Resources (FTEs)

2016-17	2017-18	2018-19
378	369	366

Performance Measurement

Expected Results	Performance Indicators	Targets	Date to Be Achieved
Natural resource sectors have increased investment	Growth of capital expenditures in the energy sector (average of past 5 years) compared to growth in overall capital expenditures in Canada (average of past 5 years)	The average 5-year growth rate of capital expenditures in the energy sector is equal to or higher than the average 5-year growth rate in capital expenditures in Canada	March 31, 2017
	Growth of capital expenditures in the forest sector (average of past 5 years) compared to growth in overall capital expenditures in Canada (average of past 5 years)	The average 5-year growth rate of capital expenditures in the forest sector is equal to or higher than the average 5-year growth rate in capital expenditures in Canada	March 31, 2017

	Growth of capital expenditures in the minerals and metals sector (average of past 5 years) compared to growth in overall capital expenditures in Canada (average of past 5 years)	The average 5-year growth rate of capital expenditures in the minerals and metals sector is equal to or higher than the average 5-year growth rate in capital expenditures in Canada	March 31, 2017

Planning Highlights

Individual sub-programs provide specific details on how key activities support expected results.

Sub-program 1.3.1: Mineral Investment

Description

Through this Sub-program, NRCan collects socioeconomic data on mineral exploration, deposit appraisal and mine complex development expenditures, physical output from production facilities, and the value of mineral production. It also manages the *Extractive Sector Transparency Measures Act*, which requires public reports from resource exploration and extraction companies on payments they make to governments in Canada and abroad.

Budgetary Financial Resources (dollars)

2016-17 Planned Spending	2017-18 Planned Spending	2018-19 Planned Spending
10,156,569	10,156,569	10,156,569

Human Resources (FTEs)

2016-17	2017-18	2018-19
96	95	96

Performance Measurement

Expected Results	Performance Indicators	Targets	Date to Be Achieved
Industry decision-makers and potential investors are provided with timely mineral socio-economic data	Number of data sets released per year	5 per year	March 31, 2017

Planning Highlights

Canadian Trade and Export Strategy – NRCan will contribute to this new strategy to help Canadian jurisdictions attract foreign direct investment by promoting Canada's competitive investment and fiscal climate for mineral development.

Mining information – NRCan will highlight Canada's competitive mining investment climate through the development of 10 information products, (including maps and production, trade, exploration and other information bulletins).

Corporate Social Responsibility (CSR) – The Department will further Canadian interests by engaging key partners and promoting sustainable mineral resource development policy and governance capacity abroad in fora such as the Asia-Pacific Economic Cooperation and Intergovernmental Forum on Mining, Minerals, Metals and Sustainable Development, the Prospectors and Developers Association of Canada, Mining Indaba and China Mining.

Sub-program 1.3.2: Targeted Geoscience[6] Initiative

Description

Mineral resources are one of the principal economic drivers in many rural and remote Canadian communities. New geoscience knowledge and techniques are required to discover mineral resources in existing and emerging mining areas. Through this Sub-program, NRCan creates new geoscience knowledge that improves understanding of entire mineral systems and helps provide innovative ways for deep exploration knowledge to be used by industry to identify the presence of buried mineral deposits. To do this, NRCan studies key examples of mineral deposits to determine the fundamental processes that lead to ore formation and the characteristics that mark the presence of these deposits. The objective of this work is to foster innovation within the mineral exploration industry, leading to more efficient discovery of new deposits, enhanced global competiveness of the industry, and sustained economic activity in mining-dependent communities. This Sub-program includes the Targeted Geoscience Initiative 5 (TGI 5) transfer payment program.

[6] Geoscience is an all-encompassing term which refers to the fields of science dealing with planet Earth and its systems including the atmosphere, hydrosphere, lithosphere and biosphere. Specific fields of geoscience (or "earth science") include geology, hydrology, glaciology, geophysics and geodesy.

Budgetary Financial Resources (dollars)

2016-17 Planned Spending	2017-18 Planned Spending	2018-19 Planned Spending
8,820,953	11,199,479	11,106,122

The growth in planned spending from 2016-17 to 2018-19 is primarily due to the increasing funding profile of the Targeted Geoscience Initiative Phase 5.

Human Resources (FTEs)

2016-17	2017-18	2018-19
50	49	48

While there is a projected growth in planned spending, there is no material fluctuation in planned FTEs from 2016-17 to 2018-19 with the increase in planned spending allocated to operating costs.

Performance Measurement

Expected Results	Performance Indicators	Targets	Date to Be Achieved
Mineral exploration industry uses the latest public geoscience knowledge and methodologies relevant to discovery of new mineral resources	Number of industry venues at which Target Geoscience Information (TGI) geoscience is presented	10 annually	March 31, 2017
	Number of emerging public geoscience knowledge or methodologies relevant as indicators of new mineral resources that have been adopted in industry exploration programs	3 annually	March 31, 2017

Planning Highlights

Ore systems – In collaboration with the provincial and territorial Geological Surveys, NRCan will implement science projects and activities pertaining to ore systems that leverage Canada's expertise and capacity to build national geoscience research groups. NRCan will also institute a geoscience grant program targeted at Canadian academia that focuses on priority science areas within the ore system framework.

Sub-program 1.3.3: Geo-Mapping[7] for Energy and Minerals

Description

Through this Sub-program, NRCan provides modern geological knowledge that helps to attract further investments in the North and benefits Northerners. It focuses on characterizing and mapping the regional geological context to document new mineral and hydrocarbon potential. In addition to reducing risk and stimulating exploration investments by industry, this geological knowledge also helps enable northern communities to make informed decisions about their future economy and society. The objective of this Sub-program is to promote exploration and long-term sustainable development for vast and untapped resources in Canada's North. This Sub-program includes the Geo-Mapping for Energy and Minerals transfer payment program.

Budgetary Financial Resources (dollars)

2016-17 Planned Spending	2017-18 Planned Spending	2018-19 Planned Spending
35,774,705	35,768,866	33,329,755

The decline in planned spending from 2016-17 to 2018-19 is primarily due to the decreasing funding profile of the Geo-Mapping for Energy and Minerals program.

Human Resources (FTEs)

2016-17	2017-18	2018-19
165	162	159

Performance Measurement

Expected Results	Performance Indicators	Targets	Date to Be Achieved
Governments and industry have increased geoscience information on Canada's North to help guide development decisions	Number of unique NRCan products accessed (e.g., downloaded) annually on Northern geoscience information	100 per year	March 31, 2017
	Percentage of new publication releases accessed (new releases are those released and accessed within a 12-month period)	75%	March 31, 2017

[7] **Geo-mapping** refers to the use of state-of-the-art geological science and technologies to document geological structures, develop geological models and regional frameworks, and create geological maps. This information provides the basis for establishing which geological formations have the highest likelihood of resource potential.

Planning Highlights

Geoscience maps and data sets – NRCan will generate new geoscience maps and data sets to inform priority location-based geoscience opportunities that will help guide industry to determine Canada's mineral and energy resource potential.

Collaboration with northern stakeholders – The Department will collaborate with northern stakeholders and their institutions in order to maximize benefits for northerners from Geo-mapping for Energy and Minerals (GEM) activities and knowledge and support evidence-based land use planning in Canada's North.

Geoscience grant funding – NRCan will issue geoscience grant funding to Canadian academia to help attract high-quality geoscience research activities that will augment the understanding of the regional geological context in Canada's North and complement NRCan expertise.

Sub-program 1.3.4: Geoscience for New Energy Supply

Description

Through this Sub-program, NRCan provides the energy sector with strategic resource assessments, methodologies and information required to make investment decisions, which is an important part of sustainable long-term economic growth in Canada.

Budgetary Financial Resources (dollars)

2016-17 Planned Spending	2017-18 Planned Spending	2018-19 Planned Spending
4,555,637	4,555,637	4,555,637

Human Resources (FTEs)

2016-17	2017-18	2018-19
39	36	36

Performance Measurement

Expected Results	Performance Indicators	Targets	Date to Be Achieved
Public and private sectors access knowledge products supporting assessment and investment decision-making on new energy exploration basins	Number of unique reports, such as strategic assessments, accessed (e.g., downloaded) annually by stakeholders	20 per year	March 31, 2017

Planning Highlights

Oil and shale gas – NRCan will conduct and release two resource assessments for new emerging Canadian tight oil and shale gas plays, make five stakeholder presentations and collaborate with external companies and agencies to develop and apply new assessment methods.

NRCan, in collaboration with stakeholders, will continue to identify and validate key energy geoscience and geo-engineering issues and research gaps (basin characterization and assessment, extraction methodologies and environmental impacts) with the goal of proposing a national approach to addressing these challenges.

Sub-program 1.3.5: Major Projects Management Office Initiative

Description

The objective of the Major Projects Management Office Initiative is to support timely and effective project reviews and to lead government-wide efforts to modernize the regulatory system for major projects. This includes efforts to improve the alignment of federal and provincial regulatory processes and to ensure effective and meaningful consultation with Indigenous people.

Budgetary Financial Resources (dollars)

2016-17 Planned Spending	2017-18 Planned Spending	2018-19 Planned Spending
3,592,355	3,592,355	3,592,355

Human Resources (FTEs)

2016-17	2017-18	2018-19
28	27	27

Performance Measurement

Expected Results	Performance Indicators	Targets	Date to Be Achieved
Timely EA regulatory decisions for major projects	Percentage of major project EAs that meet legislated timelines (CEAA, NEB, CNSC reviews)	100% of EAs meet legislated timelines	Ongoing
Integrated and robust advice supports improvements to the major project review process	MPMO Deputies are satisfied or very satisfied with how advice is advanced on horizontal issues	70% of MPMO Deputies are satisfied with how policy advice is advanced	Ongoing

Planning Highlights

Science Transparency – NRCan will work to improve public confidence in the environmental assessment process by strengthening transparency of NRCan science underpinning major project decisions, and by ensuring NRCan's authoritative scientific expertise optimally informs major project reviews.

Horizontal lead – NRCan will provide horizontal leadership, overarching project management, and accountability for major resource projects within the context of the existing federal regulatory review process.

Program 1.4: Statutory Programs – Atlantic Offshore

Description

Through this Program, NRCan monitors and facilitates payment disbursal agreements and transfer payments under the Atlantic Offshore Accord Acts. The Program includes the following programs: Canada Newfoundland Offshore Petroleum Board; Payments to the Newfoundland Offshore Petroleum Resource Revenue Fund; Payments to the Nova Scotia Offshore Revenue Account; Nova Scotia Crown Share Adjustment Payment; and Canada-Nova Scotia Offshore Petroleum Board.

Budgetary Financial Resources (dollars)

2016-17 Main Estimates	2016-17 Planned Spending	2017-18 Planned Spending	2018–18 Planned Spending
743,336,158	743,336,158	761,960,697	806,240,682

The increase in planned spending from 2016-17 to 2018-19 is primarily due to an increase under the Offshore Atlantic Accords, specifically related to agreements between the Government of Canada and the province of Newfoundland and Labrador. As the majority of the payments obligations under the Offshore Atlantic Accords for this Program are related to the offshore revenues which are largely driven by oil and gas prices, production levels and anticipated corporate income taxes related to offshore operations, the planned spending trend fluctuates accordingly.

Human Resources (FTEs)

2016-17	2017-18	2018-19
0	0	0

While the program focuses on actual statutory transfer payments, the FTEs assigned to process the payments are funded under sub-program 1.1.3 as that is the sub-program those FTEs primarily support.

Performance Measurement

Expected Results	Performance Indicators	Targets	Date to Be Achieved
Statutory requirements relating to offshore petroleum payments in Nova Scotia and Newfoundland and Labrador are managed in a timely manner	Percentage of offshore payments processed in a timely manner	100%	Ongoing

Planning Highlights

NRCan will process offshore transfer payments to both Nova Scotia and Newfoundland and Labrador as required under the Accord Acts in a timely and accurate manner.

Strategic Outcome 2: Natural Resource Sectors and Consumers are Environmentally Responsible

Description

Energy use and natural resource development can have negative impacts on the land, water, and air, which can affect the standard of living of current and future generations. The objective of this Strategic Outcome is to encourage natural resource consumers and sectors to lessen and prevent environmental impacts. NRCan contributes to the achievement of this outcome by:

- Encouraging the adoption of technologies, products, practices and services that improve efficiency and environmental performance;
- Fostering innovative solutions to environmental challenges associated with natural resource development and use; and
- Enabling the management of potential impacts on the environment.

Program 2.1: Energy-Efficient Practices and Lower-Carbon Energy Sources

Description

Canada's energy markets are defined by the decisions of energy consumers and producers. However, there are multiple barriers to the adoption of energy efficient practices and implementation of lower-carbon energy sources, including a lack of awareness of available options and their benefits, insufficient capacity for adoption (e.g., regulatory frameworks, codes and standards), and financial risk. The objectives of this Program are to address these barriers by encouraging and enabling energy consumers and producers to adopt cleaner and more efficient energy technologies, products, services and practices. These objectives are achieved through education and outreach activities, targeted incentives, and regulatory interventions that keep pace with technological changes.

Budgetary Financial Resources (dollars)

2016-17 Main Estimates	2016-17 Planned Spending	2017-18 Planned Spending	2018-19 Planned Spending
183,336,817	183,336,817	133,361,992	120,560,992

The decline in planned spending from 2016-17 to 2018-19 is twofold. First, it's due to the decrease in funding profile from 2016-17 to 2018-19 for ecoENERGY for Renewable Power, mainly reducing the Gs&Cs vote and second, to the sunsetting for ecoENERGY for Biofuels and Wind Power Production Incentive (WPPI) programs in 2016-17, reducing funding under both, the operating and Gs&Cs votes.

Human Resources (FTEs)

2016-17	2017-18	2018-19
101	82	82

The decline in planned FTEs from 2016-17 to 2017-18 is primarily due to the sunsetting of ecoENERGY for Biofuels and WPPI in 2016-17; but is less significant given only a fraction of the decline in planned spending pertains to personnel costs. Given the nature of the decline in planned spending for ecoENERGY for Renewable Power, this program causes no material fluctuation in planned FTEs from 2016-17 to 2018-19.

Performance Measurement

Expected Results	Performance Indicators	Targets	Date to Be Achieved
Energy consumers and producers adopt environmentally responsible products and practices related to energy use and production	Canada's total annual energy savings due to efficiency (difference between energy use without energy efficiency improvements and energy use with energy efficiency improvements; the units are petajoules (PJ))	TBD*	TBD*
	Renewable electricity generation capacity in megawatts (MW) across Canada	Favourable 5-year trend in MW, as per 2007 baseline of 6,753 MW of installed capacity (excluding large hydro)	Now and ongoing
	Biofuel production in Canada	Favourable 5-year trend as per 2007 baseline of 786.1 million litres of ethanol and 92.8 million litres of biodiesel	Now and ongoing

* The Target in 2015-16 RPP was "Favourable 5-year trend in petajoules saved, as per 2008 baseline". The target has been set to TBD pending decision on programming.

Planning Highlights

Individual sub-programs provide specific details on how key activities support expected results.

Sub-program 2.1.1: Renewable Energy Deployment

Description

Through this Sub-program, NRCan develops a supportive policy framework for administering marine renewable energy measures in the federal offshore through the Marine Renewable Energy Enabling Measures program. NRCan also supports production of renewable energy through support to projects through the ecoENERGY for Renewable Power and Wind Power Production Incentive transfer payment programs.

Budgetary Financial Resources (dollars)

2016-17 Planned Spending	2017-18 Planned Spending	2018-19 Planned Spending
142,444,972	120,241,898	107,367,098

The decline in planned spending from 2016-17 to 2018-19 is twofold. First, it's due to the decreasing funding profile from 2016-17 to 2018-19 for ecoENERGY for Renewable Power program, mainly reducing the Gs&Cs vote and second, to the sunsetting of WPPI in 2016-17, reducing funding under both, the operating and Gs&Cs votes.

Human Resources (FTEs)

2016-17	2017-18	2018-19
7	5	5

The decline in planned FTEs from 2016-17 to 2017-18 is primarily due to the sunsetting of WPPI in 2016-17; but is less significant given only a fraction of the decline in planned spending pertains to personnel costs. Given the nature of the decline in planned spending for ecoENERGY for Renewable Power, this program causes no material fluctuation in planned FTEs from 2016-17 to 2018-19.

Performance Measurement

Expected Results	Performance Indicators	Targets	Date to Be Achieved
Federal government decision makers have information on policy framework for administering marine renewable energy in the federal offshore	Production of policy framework administering marine renewable energy in the federal offshore	1 policy framework	March 31, 2017

Renewable electricity is produced by the projects supported by NRCan programs	Number of terawatt-hours (TWh) of clean electricity produced	13 TWh	March 31, 2017

Planning Highlights

EcoENERGY for Renewable Power program – Although the program will sunset in March 2016, the capacity created will contribute to 12.7 TWh of electricity production from renewable power sources during 2016-17.

Wind Power Production Incentive program – NRCan will administer the completion of all Contribution Agreements by March 31, 2017.

Sub-program 2.1.2: Support for Clean Energy Decision-Making

Description

Through this Sub-program, NRCan evaluates the effectiveness of solutions to the domestic and international environmental impacts of energy development and supports Canadian suppliers of innovative and energy efficient products (which are predominantly small and medium-sized enterprises). NRCan also provides high-quality tools, information and analysis about clean energy and climate change to the public and to government decision-makers, and supports Canada's international actions on climate change.

Budgetary Financial Resources (dollars)

2016-17 Planned Spending	2017-18 Planned Spending	2018-19 Planned Spending
0	0	0

The nil balance in planned spending is due to the sunsetting of the International Climate Change Strategy and Clean Energy Dialogue program in 2015-16. Government decisions on sunsetting programs would be reflected in the Department's future Budget exercises and Estimates documents.

Human Resources (FTEs)

2016-17	2017-18	2018-19
0	0	0

Performance Measurement

Expected Results	Performance Indicators	Targets	Date to Be Achieved
TBD	TBD	TBD	TBD

Performance measurement parameters have been set to "TBD" pending decisions on program renewal, due to the expiry of budgetary spending authorities for some of the Clean Energy suite of programs.

Planning Highlights

Planned spending, full time equivalents and performance targets reflect the expiry of budgetary spending authorities for some of the Clean Energy suite of programs which had been approved for a five-year period between 2011 and 2016. The Government of Canada's decision on future funding is pending.

Sub-program 2.1.3: Alternative Transportation Fuels

Description

Through this Sub-program, NRCan addresses the barriers to the use of alternative fuels by increasing production capacity, designing and developing education and outreach materials, and facilitating the design, development and updating of codes and standards. This Sub-program includes the ecoENERGY for Biofuels transfer payment program.

Budgetary Financial Resources (dollars)

2016-17 Planned Spending	2017-18 Planned Spending	2018-19 Planned Spending
28,840,720	0	0

The decline in planned spending from 2016-17 to 2018-19 is primarily due to the sunsetting of ecoENERGY for Biofuels program in 2016-17.

Human Resources (FTEs)

2016-17	2017-18	2018-19
23	0	0

The decline in planned FTEs from 2016-17 to 2018-19 is primarily due to the sunsetting of ecoENERGY for Biofuels in 2016-17.

Performance Measurement

Expected Results	Performance Indicators	Targets	Date to Be Achieved
Fuel producers have the capacity to produce renewable alternatives to gasoline and diesel	Number of producers of renewable alternatives to gasoline and diesel receiving production incentives for up to 7 years	21 producers successfully complete a 7-year agreement by March 2017	March 31, 2017

Planning Highlights

EcoENERGY for Biofuels program – The Government of Canada has made investments to remove barriers to the production and use of alternative transportation fuels, and to help create a domestic biofuels industry through capital and operating incentives for production, regulations for renewable content, and support for construction of first-of-kind next generation biofuel facilities. With the support of federal programs, such as the ecoENERGY for Biofuels program, and provincial programs, the biofuel industry has grown considerably.

Sub-program 2.1.4: Energy Efficiency

Description

Through this Sub-program, NRCan encourages the adoption of energy-efficient technologies, products and practices through labelling, by providing information on energy management and training, and by making the stock of housing, buildings and energy-using products more efficient through regulation, codes, standards and energy benchmarking activities. It also makes industrial and vehicle operations more energy efficient through energy management standards and practices.

Budgetary Financial Resources (dollars)

2016-17 Planned Spending	2017-18 Planned Spending	2018-19 Planned Spending
12,051,125	13,120,094	13,193,894

Human Resources (FTEs)

2016-17	2017-18	2018-19
71	77	77

Performance Measurement

Expected Results	Performance Indicators	Targets	Date to Be Achieved
Canadians adopt NRCan-targeted energy efficient products and practices	Product models that meet the regulated minimum energy performance	95% of product models tested or audited post-market meet regulated requirements	Annually - by June of each year
	Number of new client-organizations using Federal Buildings Initiative (FBI) tools and services	2 new client organizations	March 31, 2017

Planning Highlights

EcoEnergy efficiency program – NRCan will build on the successful ecoEnergy efficiency program to advance energy efficiency. It will support requirements of the *Energy Efficiency* capacity-building, information-sharing, as well as compliance monitoring.

Energy Efficiency Regulations – NRCan will audit or test 4 categories of regulated energy-using products (such as household appliances, commercial equipment, and industry motors) in the Canadian marketplace to ensure they meet the minimum standards. The Department ensures that the industry complies with the *Energy Efficiency Regulations*.

Data Collection and Analysis – To support further collaboration with the provinces and territories, and internationally through bilateral and multilateral engagement, NRCan will, among others, collect energy consumption information via 4 data-collection surveys spanning the industrial, residential and transportation sectors. The results of the surveys will enable the measurement and modeling of energy efficiency in the Canadian economy, and will help support sound decision-making about energy efficiency programs at the federal, international, and sub-national levels.

For ENERGY STAR Portfolio Manager – NRCan will facilitate the registration of 570 Buildings in the ENERGY STAR Portfolio Manager Benchmarking tool by March 31, 2017, and will assist federal facilities to implement at least 2 energy-saving projects.

Program 2.2: Technology Innovation

Description

S&T is key to overcoming challenges confronted by natural resource sectors in pursuing responsible development. Through this Program, NRCan encourages academia, industry and the public sector to research, develop and demonstrate innovative solutions. This objective is achieved through the generation and dissemination of scientific knowledge, and the development and demonstration of new technologies.

Budgetary Financial Resources (dollars)

2016-17 Main Estimates	2016-17 Planned Spending	2017-18 Planned Spending	2018-19 Planned Spending
115,838,434	115,838,434	108,270,795	104,315,546

The decline in planned spending from 2016-17 to 2018-19 is primarily due to the decreasing funding profile of the Sustainable Development Technology Canada Tech Fund[8] which is in the Gs&Cs vote.

Human Resources (FTEs)

2016-17	2017-18	2018-19
516	513	512

Performance Measurement

Expected Results	Performance Indicators	Targets	Date to Be Achieved
Stakeholders invest in S&T to address environmental challenges	Dollar value of stakeholder investments in S&T to address environmental challenges	5% increase over the average of the previous 5 year period	March 31, 2017

Planning Highlights

Individual sub-programs provide specific details on how key activities support expected results.

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[8] On November 4, 2015, an Order-in-Council designated the Minister of Industry (now the Minister of Innovation, Science and Economic Development) as the Minister for the purposes of the *Canada Foundation for Sustainable Development Technology Act*. As a result, resources allocated to this organization will be transferred to Innovation, Science and Economic Development Canada, thereby, reducing NRCan financial resources. The above financial table does not reflect this reduction. Until the transfer is complete, NRCan will continue to disburse funds from its reference levels toward both the SDTC's NextGen Biofuels Fund and the SDTC Tech Fund. These disbursements will remain equally shared between NRCan and ECCC, with each department reporting its shares in its respective RPP and DPR.

Sub-program 2.2.1: Materials for Energy

Description

Through this Sub-program, NRCan performs applied research and development that delivers materials and materials-processing innovations, enabling clean energy production, safe and reliable energy distribution, and more efficient use of energy in areas such as transportation, buildings and industry.

Budgetary Financial Resources (dollars)

2016-17 Planned Spending	2017-18 Planned Spending	2018-19 Planned Spending
5,094,556	5,094,556	5,094,556

Human Resources (FTEs)

2016-17	2017-18	2018-19
83	82	82

Performance Measurement

Expected Results	Performance Indicators	Targets	Date to Be Achieved
New materials technologies in clean power generation and safe and reliable energy distribution are developed for industry	Number of innovative materials technologies developed, contributed to, or validated by NRCan for use in power generation systems powered by nuclear, fossil or renewable energy	2 over 3 years	March 31, 2017
New materials technology or standards to transport fossil fuels effectively (safely and efficiently) are developed for industry	Number of new technologies or standards developed, contributed to, or validated by NRCan leading to more effective transport of fossil fuels (safely and efficiently)	3 over 5 years	March 31, 2017
Advanced materials technologies for new energy efficient vehicle designs are developed for industry	Number of advanced materials technologies to which NRCan contributed that have an impact on industry stakeholders products or decision making in the manufacture of energy efficient vehicles produced in North America	2 over 3 years	March 31, 2018

Planning Highlights

Nuclear Energy Supply – Uninterrupted nuclear energy supply is critical for Canada as part of its clean energy mix. In 2016-17, working with Canadian nuclear stakeholders, NRCan will develop innovative material technologies for use in fuel bundles for current and/or advanced reactors. The new materials technology will allow better decision making on whether replacement is needed of the Canada Deuterium Uranium (CANDU) fuel channel component, avoiding unnecessary shutdowns.

Pipeline Safety – The Department will build on its research on materials for oil and gas pipelines to develop at least one new code and standard. This will contribute to ensuring pipeline safety and integrity and protection of the environment.

Energy-Efficient Vehicles – NRCan will present to industry one new advanced material technology to be identified for implementation in the design or processing of components for energy efficient vehicles produced in North America.

Sub-program 2.2.2: Green Mining

Description

Through this Sub-program, NRCan develops and demonstrates innovative mining technologies and practices that eliminate or reduce environmental impacts and financial risks. These technologies and practices also expand domestic and international business opportunities for mining companies, technology developers and consultants. NRCan identifies business needs, technology gaps and priorities with input from the Canada Mining Innovation Council. Applied research aims to reduce land disturbance; water, energy and hazardous chemical use; waste volumes; and releases to the environment; and to accelerate site restoration. In addition, findings contribute to the scientific, technological and socioeconomic basis for updating federal, provincial and territorial mining and environmental regulations and policies, and inform policy priorities in other countries that drive demand for technologies and services.

Budgetary Financial Resources (dollars)

2016-17 Planned Spending	2017-18 Planned Spending	2018-19 Planned Spending
7,256,936	7,256,936	7,256,936

Human Resources (FTEs)

2016-17	2017-18	2018-19
60	60	60

Performance Measurement

Expected Results	Performance Indicators	Targets	Date to Be Achieved
Technology developers increase demonstration of environmental technologies	Number of demonstration projects	2 over 5 years	March 31, 2017

Planning Highlights

Development of Environmental Technologies – NRCan will support the development and adoption of sustainable practices by: 1) finalising its work on different types of biochar (a solid material obtained from thermochemical conversion) to determine the feasibility of developing productive agricultural land uses on mine waste; and 2) furthering testing on membrane technology, with the aim of improving water management in the oil sands industry.

Innovative Business Model – In collaboration with the Green Mining Initiative Advisory Committee, NRCan will develop a business model to accelerate the uptake of green mining technologies. It will lead on a project to enhance energy savings (by initially mapping recoverable waste energy in the grinding circuit) and enhance water management (by assessing membrane separation processes for the treatment of acidic mine drainage streams for different sites).

Sub-program 2.2.3: Clean Energy Science and Technology

Description

Through this Sub-program, NRCan collaborates with academia, industry and the public sector to research, develop and demonstrate innovative solutions to environmental challenges in the energy sector. The Department also funds, creates and advances new energy knowledge and technologies. The objective is for academia, industry, and the public sector to lay the foundation for the next generation of clean energy technologies and practices to have fewer negative impacts on Canada's air, land and water. This Sub-program includes the following transfer payment programs: Clean Energy Fund, Sustainable Development Technology Canada's (SDTC)[9] SD Tech Fund, SDTC's NextGen Biofuels Fund, and the Science and Technology Internship Program.

Budgetary Financial Resources (dollars)

2016-17 Planned Spending	2017-18 Planned Spending	2018-19 Planned Spending
103,486,942	95,919,303	91,964,054

The decline in planned spending from 2016-17 to 2018-19 is primarily due to the decreasing funding profile of the Sustainable Development Technology Canada Tech Fund, which is in the Gs&Cs vote.

Human Resources (FTEs)

2016-17	2017-18	2018-19
373	371	370

There is no material fluctuation in planned FTEs from 2016-17 to 2018-19 since the decrease in planned spending is related to Gs&Cs expenses.

[9] On November 4, 2015, an Order-in-Council designated the Minister of Industry (now the Minister of Innovation, Science and Economic Development) as the Minister for the purposes of the *Canada Foundation for Sustainable Development Technology Act*. As a result, resources allocated to this organization will be transferred to Innovation, Science and Economic Development Canada, thereby, reducing NRCan financial resources. The above financial table does not reflect this reduction. Until the transfer is complete, NRCan will continue to disburse funds from its reference levels toward both the SDTC's NextGen Biofuels Fund and the SDTC Tech Fund. These disbursements will remain equally shared between NRCan and ECCC, with each department reporting its shares in its respective RPP and DPR.

Performance Measurement

Expected Results	Performance Indicators	Targets	Date to Be Achieved
Academia, industry and the public sector pursue clean energy S&T that has fewer negative environmental impacts	Ratio of NRCan program investments in clean energy S&T to leveraged funding from partners	1:0.5 ratio	March 31, 2017

Planning Highlights

Clean energy – The government has committed to encourage economic growth through strategic investments in clean technology. Canada signed on as member of Mission Innovation, an international initiative bringing together 20 countries and leading industry leaders through the Breakthrough Energy Coalition, to accelerate global clean energy innovation. NRCan is leading this effort on behalf of the Government of Canada, and will work to bring forward proposals in 2016-17 that will increase the federal investment in clean energy RD&D. NRCan is also developing a Clean Innovation Strategy to spur the development, commercialization and adoption of clean technologies, products and processes across the economy. In 2016-17, national engagement will occur that will lead to measures to support cleantech producers and increase cleantech investments.

Fossil fuels – NRCan will support approximately 60 R&D projects in five different technology areas: advanced energy systems for power, steam and heat generation, including carbon capture and storage; frontier oil and gas; oil sands; pipelines; and tight oil and unconventional gas. The primary objective of this R&D program is to improve the environmental performance of fossil fuels resource development, including greenhouse gas reductions, thereby reducing the environmental impact on air, water, and land, and ensuring the safe transport of resources. A secondary objective is to increase the productivity and economic competitiveness of the sector.

Electricity – NRCan will support approximately 20 R&D projects in three different technology areas: sustainable bioenergy; grid integration of renewables; and northern and remote energy systems. The primary objectives of this R&D program are to: grow renewable energy supply while maintaining reliability; increase renewable energy access for remote and northern communities; strengthen economic competitiveness of the electricity sector, and improve the environmental performance of clean electricity and renewables.

End use – NRCan will support approximately 37 R&D projects in three different technology areas: industry; transportation; and built environment, including buildings, heating and cooling and smart communities. The primary objectives of this R&D program are to improve energy

efficiency, reduce greenhouse gas and other air emissions, and support the sector's productivity and competitiveness.

Program 2.3: Responsible Natural Resource Management

Description

Greater knowledge of environmental risks and environmentally responsible practices help prevent and reduce the environmental impacts of past, present and future natural resource development. The objectives of this Program are to enable government departments, regulatory bodies and industry to assess these impacts, and to develop, monitor and maintain resources or clean up wastes responsibly. These objectives are achieved through the provision of assessments and knowledge rooted in sound science, and through waste management efforts that are undertaken in collaboration with provinces, federal agencies and municipalities.

Budgetary Financial Resources (dollars)

2016-17 Main Estimates	2016-17 Planned Spending	2017-18 Planned Spending	2018-19 Planned Spending
29,619,508	29,619,508	28,958,607	28,959,115

Human Resources (FTEs)

2016-17	2017-18	2018-19
242	239	239

Performance Measurement

Expected Results	Performance Indicators	Targets	Date to Be Achieved
Public and private sectors establish practices to mitigate the environmental impacts to natural resources	Number of public and private sector new or updated policies, regulations or other decision-making tools completed annually	3 per year	March 31, 2017

Planning Highlights

Individual sub-programs provide specific details on how key activities support expected results.

Sub-program 2.3.1: Forest Ecosystems Science and Application

Description

Through this Sub-program, NRCan conducts research, national assessments and monitoring to develop scientific knowledge of Canada's forest ecosystems. This knowledge is used by governments, industry, and non-governmental organizations for multiple purposes, including developing forest management practices and policies, meet reporting obligations, form negotiating positions, and counter misconceptions of Canada's forest practices.

Budgetary Financial Resources (dollars)

2016-17 Planned Spending	2017-18 Planned Spending	2018-19 Planned Spending
15,863,062	15,375,776	15,375,675

Human Resources (FTEs)

2016-17	2017-18	2018-19
140	137	136

Performance Measurement

Expected Results	Performance Indicators	Targets	Date to Be Achieved
Governments, industry, non-governmental organizations and other stakeholders are provided with scientific knowledge on forest ecosystems to support knowledge-based sustainable forest management policies and practices	Participation of the Canadian Forest Service on advisory boards or committees involving the sharing of knowledge on forest ecosystems to governments, industry and non-governmental organizations	Participation on advisory boards and committees stays within 10% of baseline of 100 advisory boards and committees	March 31, 2017

Planning Highlights

Creation of new scientific knowledge – NRCan will increase the scientific knowledge of forest ecosystems by: 1) refining its Carbon Budget Model, which is a key component of the Canada's National Forest Carbon Monitoring Accounting and Reporting System, to better estimate carbon dynamics within forests on organic soils and boreal peat lands and reduce uncertainty in model predictions; and 2) conducting and synthesizing science-based research on forest ecosystems as well as supporting the preparation of the report on the *State of Canada's Forests*, a Government reporting requirement under the *Department of Natural Resources Act*.

Dissemination and use of scientific knowledge – This knowledge will be used to estimate forest-related carbon and GHG emissions that will be included in *Canada's 2016 Greenhouse Gas Inventory Report* produced by ECCC. It will also be used to demonstrate sustainable forest management practices by the Canadian industry and thus support the international reputation of its products. Finally, NRCan will make this knowledge accessible to various stakeholders (industry non-governmental organizations, provincial and territorial governments) through different means (such as peer-reviewed journals). This will enable the stakeholders to establish practices to mitigate climate change and the environmental impacts of natural resource development.

Sub-program 2.3.2: Groundwater Geoscience

Description

Through this Sub-program, NRCan provides comprehensive groundwater information and expertise, which contributes to sustainable land-use decision making and groundwater management. Groundwater provides up to 80% of rural Canada's drinking water and is an essential component of ecosystem health. NRCan conducts groundwater mapping and assessment activities on key aquifers to better understand the extent of groundwater systems, their dynamics and vulnerability. NRCan also collaborates with its provincial partners to ensure data and approaches in different jurisdictions are harmonized. This information is disseminated through a web portal used by other departments and levels of government, planners and land-use professionals for decision making.

Budgetary Financial Resources (dollars)

2016-17 Planned Spending	2017-18 Planned Spending	2018-19 Planned Spending
3,762,964	3,762,964	3,762,964

Human Resources (FTEs)

2016-17	2017-18	2018-19
27	27	28

Performance Measurement

Expected Results	Performance Indicators	Targets	Date to Be Achieved
Public and private sectors involved in groundwater management practices incorporate NRCan information into their products	Number of citations from public and/or private sector organizations incorporating NRCan's groundwater geoscience information and tools into their products (e.g., aquifer maps and data, methods and approaches, plans and reports)	5 per year	March 31, 2017

Planning Highlights

Data availability – The Department will increase the amount of groundwater geoscience data and scientific products available by 5% via the Groundwater Information Network portal thus further enabling clients and stakeholders to carry out their groundwater research and meet management needs.

Groundwater science protocols and standards – NRCan will continue to provide the most up-to-date groundwater science developed through the assessment of key Canadian aquifers. Due to diminishing resources, it will work with its partners to transfer methods and protocols so that other aquifers of interest can be assessed under the leadership of the provincial authorities.

Partnerships – NRCan will continue progress on mapping 3 key Canadian aquifers with an expected 50% completion target by the end of the fiscal year and develop formal partnerships with at least one province.

Sub-program 2.3.3: Environmental Studies and Assessments

Description

Through this Sub-program, NRCan provides expert information and advice to government departments, regulatory bodies and industry to inform regulatory policies, industry practices and environmental assessments conducted under the *Canadian Environmental Assessment Act 2012*. This work serves to guide the planning of natural resource developments and to identify environmental impacts of major resource projects. NRCan information and advice also informs the process of designating new federal parks and protected areas on federal lands with the identification of mineral and energy resource potential.

Budgetary Financial Resources (dollars)

2016-17 Planned Spending	2017-18 Planned Spending	2018-19 Planned Spending
5,932,429	5,879,821	5,880,430

Human Resources (FTEs)

2016-17	2017-18	2018-19
46	46	46

Performance Measurement

Expected Results	Performance Indicators	Targets	Date to Be Achieved
Governments, regulatory bodies, industry and the public access sound environmental geoscience information.	Number of citations from public and/or private sector organizations incorporating NRCan's environmental geoscience information into their products	5 per year	March 31, 2017
Informed environmental assessments	Percentage of major projects in which NRCan provided all necessary scientific and technical expertise to support the environmental assessment process. (Major projects is defined as those tracked by the MPMO/Northern Projects Management Office)	90%	March 31, 2017

Planning Highlights

Environmental Assessments – The Department will meet, in a timely manner, 90% of the requests for geoscience expertise needed to support environmental assessments under the *Canadian Environmental Assessment Act* (2012) and northern legislation and for Mineral and Energy Resource Assessment requirements. In addition, NRCan will support the assessments by reviewing approaches for mine waste management and geochemistry for mining projects, as well as other projects with acidic drainage and/or metal leaching concerns.

Environmental and Geoscience Knowledge – NRCan will release information on the most recent research results on the:

- Effects hydraulic fracturing on shallow aquifers and induced seismicity for use by different public and private organizations;
- Environmental effects of oil sands developments; and
- Fate of specific mining-related elements in the environment.

Sub-program 2.3.4: Radioactive Waste Management

Description

Through this Sub-program, NRCan develops knowledge, innovative technologies, policy and programs to establish long-term management solutions for radioactive waste. Specifically, NRCan is involved in clean-up operations where the original private sector producer no longer exists or cannot be held responsible. This Sub-program includes the Gunnar Mine Remediation transfer payment program.

Budgetary Financial Resources (dollars)

2016-17 Planned Spending	2017-18 Planned Spending	2018-19 Planned Spending
2,947,653	2,826,646	2,826,646

Human Resources (FTEs)

2016-17	2017-18	2018-19
23	23	23

Performance Measurement

Expected Results	Performance Indicators	Targets	Date to Be Achieved
Payments to the Province of Saskatchewan under the Gunnar contribution agreement are managed appropriately	Percentage of eligible costs under the contribution agreement paid in a timely manner	100%	Ongoing

Planning Highlights

Atomic Energy of Canada Limited – NRCan will continue to manage the transfer payment program for the Gunnar Mine Remediation to advance the decommissioning of the Gunnar Uranium mine site, pursuant to a Memorandum of Agreement with the Province of Saskatchewan.

Medical Isotopes – NRCan will work with stakeholders, provincial and territorial counterparts, as well as bilaterally and multilaterally to support the transition to a market-driven and secure supply of medical isotopes in a manner that also minimizes radioactive waste.

Sub-program 2.3.5: Geospatial Information for Responsible Natural Resource Management

Description

This Sub-program provides government departments, regulatory bodies and industry with sound science, and delivers geospatial technology and products that are a fundamental source of information for regulatory frameworks and related environmental assessments. The Sub-program's focus is primarily on the energy-producing regions of Canada (e.g., oil sands), and the North.

Budgetary Financial Resources (dollars)

2016-17 Planned Spending	2017-18 Planned Spending	2018-19 Planned Spending
1,113,400	1,113,400	1,113,400

Human Resources (FTEs)

2016-17	2017-18	2018-19
6	6	6

Performance Measurement

Expected Results	Performance Indicators	Targets	Date to Be Achieved
Governments, regulatory compliance monitoring bodies and industry use Earth Observation scientific information (i.e., value-added datasets and publications) to support responsible resource development practices	Number of methods, value-added products and/or demonstration products used by government regulatory bodies and/or industry	5 per year	March 31, 2017

Planning Highlights

Geospatial products – NRCan will provide geospatial products (such as orthomosaics and terrain models) and reports for northern landscapes on the impacts of air pollutants, forest fires, vegetation change, and development activities for sensitive areas in the North.

Unmanned Aerial Vehicle – NRCan will develop and disseminate methodology for the operational implementation of UAV surveys to detect landscape and vegetation changes over short-time scales.

Strategic Outcome 3: Canadians have Information to Manage their Lands and Natural Resources and are protected from Related Risks

Description

It is through only a deep and expansive understanding of Canada's lands and natural resources that today's decision-makers can determine the right choices for tomorrow – choices that keep Canada's lands and natural resources properly managed and safeguarded. This deep and expansive understanding requires expertise and technology. The objective of this strategic outcome is achieved by providing this expertise and technology, enabling a) the management of risks to human, natural resource, and infrastructure health and b) the use of landmass knowledge.

Program 3.1: Protection for Canadians and Natural Resources

Description

Natural resource development and changes in the environment pose risks to human, natural resource and infrastructure health. The objective of this Program is to enable other government departments, communities, and the private sector to manage these risks and to ensure the appropriate capacity is in place. NRCan achieves this objective by providing regulation, knowledge, tools and services and by fulfilling legislated responsibilities.

Budgetary Financial Resources (dollars)

2016-17 Main Estimates	2016-17 Planned Spending	2017-18 Planned Spending	2018-19 Planned Spending
57,808,743	57,808,743	49,858,500	48,894,225

The decline in planned spending from 2016-17 to 2018-19 is primarily due to the decreasing funding profile of the Enhancing National Earthquake Monitoring program which focuses on implementing new technology and scientific advances to enhance the national capability to protect Canadians from the impact of earthquake. The program will be completed by 2018-19.

Human Resources (FTEs)

2016-17	2017-18	2018-19
427	423	419

Performance Measurement

Expected Results	Performance Indicators	Targets	Date to Be Achieved
Governments, communities and the private sector manage risks or opportunities to natural resources, infrastructure, and human health	Number of risk assessments (climate change, geohazards, other), policies, regulations, plans, standards (codes) or guidelines developed using NRCan information or services	5 per year	March 31, 2017
	Number of active collaborations with the public and private sector that manage risks or opportunities to human population, natural resources and infrastructure health	6 collaboration agreements	March 31, 2017

Planning Highlights

Individual sub-programs provide specific details on how key activities support expected result.

Sub-program 3.1.1: Explosives Safety and Security

Description

Through this Sub-program, NRCan administers and enforces the *Explosives Act* and associated regulations, which govern the manufacture, importation, transportation, sale, distribution and storage of explosives. This includes fireworks and pyrotechnics, and the sale of materials that can be used to produce explosives. NRCan conducts compliance promotion, outreach, inspections, investigations and enforcement of the Act and regulations. It also tests and develops policies, procedures, guidelines, rules and standards, and supplies expertise to other federal government organizations and law enforcement agencies.

Budgetary Financial Resources (dollars)

2016-17 Planned Spending	2017-18 Planned Spending	2018-19 Planned Spending
4,725,656	4,267,483	4,267,483

Human Resources (FTEs)

2016-17	2017-18	2018-19
58	58	58

Performance Measurement

Expected Results	Performance Indicators	Targets	Date to Be Achieved
Regulated establishments' compliance with regulatory requirements is monitored and enforced to protect Canadians from the dangers of explosives	Number of explosives inspections completed	600 per year	March 31, 2017

Planning Highlights

Enhanced regulatory and safety role – NRCan will continue to monitor threats and explore options for enhancing its role over the coming year.

Inspections – NRCan will conduct inspections on explosives safety and security, with the aim of ensuring that 70% of inspections are rated satisfactory or better. This goal will be supported by ongoing outreach activities with industry to further education related to the recent amendments to the Explosives Regulations.

Sub-program 3.1.2: Materials and Certification for Safety and Security

Description

Through this Sub-program, NRCan conducts non-destructive testing to ensure the integrity of safety-critical components in equipment and buildings such as cranes, heavy equipment, nuclear reactors, pipelines and other applications and certifies individuals to a national standard, which is aligned with international standards. NRCan also develops materials solutions to provide increased protection to Canadian Forces personnel and assets, specifically protecting light military vehicles and occupants from the effects of improvised explosive devices, and dismounted soldiers and law enforcement personnel against projectiles and fragmentation devices.

Budgetary Financial Resources (dollars)

2016-17 Planned Spending	2017-18 Planned Spending	2018-19 Planned Spending
20,119	20,119	20,119

There is no material fluctuation in planned spending from 2016-17 to 2018-19. While planned spending is relatively low, it is important to note that it is offset with the projected revenues directly related to this Sub-program activity.

Human Resources (FTEs)

2016-17	2017-18	2018-19
18	16	15

The decline in planned FTEs from 2016-17 to 2018-19 is attributable to casual contracts not being renewed. The remaining planned FTEs will mostly be covered by net-vote revenues.

Performance Measurement

Expected Results	Performance Indicators	Targets	Date to Be Achieved
Individuals are certified to perform non-destructive testing to a national standard	Number of valid and active certifications maintained by NRCan (certifications are currently offered in multiple methods and individuals are typically certified in more than one method and/or sector)	12,000	March 31, 2017

Planning Highlights

ISO 9001 and ISO 17024 – The National Non-Destructive Testing Certification Body will obtain external accreditation to these standards of ISO 9001 and ISO 17024 quality management systems to build on NRCan's commitment to excellence in program quality and service delivery.

Sub-program 3.1.3: Forest Disturbances Science and Application

Description

Through this Sub-program, NRCan conducts research and analysis to develop scientific knowledge of forest disturbances (e.g., pests, fire). This scientific knowledge is used by federal, provincial and territorial governments and agencies (both policy makers and regulators) as well as the forest industry to assess risks, forecast impacts and develop mitigation and adaptation strategies related to pests, fire, and climate change. This Sub-program includes the Invasive Alien Species Strategy for Canada.

Budgetary Financial Resources (dollars)

2016-17 Planned Spending	2017-18 Planned Spending	2018-19 Planned Spending
27,194,987	26,855,924	26,855,825

Human Resources (FTEs)

2016-17	2017-18	2018-19
225	224	225

Performance Measurement

Expected Results	Performance Indicators	Targets	Date to Be Achieved
Governments, agencies and industry are provided with scientific knowledge on forest disturbances to assess risks, and develop mitigation and adaptation strategies	Participation of the Canadian Forest Service on advisory boards or committees involving the sharing of knowledge on forest disturbances to governments, industry, and non-governmental organizations	Participation on advisory boards and committees stays within 10% of baseline Baseline is 73 advisory boards and committees	March 31, 2017

Planning Highlights

Creation of new knowledge – NRCan will generate new scientific knowledge and integrate it in analyses of the vulnerability and adaptation capacity of Canadian forests and forest sector to climate change. It will pursue research laying the science foundations for an early intervention strategy against the spruce budworm in Eastern Canada. It will also maintain research efforts to better understand mountain pine beetle spread in novel habitats in Western Canada, and to mitigate the impacts of major pathogens on Canadian forests. Finally, it will produce a wildland fire research strategy to ensure NRCan's science and technologies address current priorities.

Dissemination and use of scientific knowledge – NRCan will disseminate its knowledge and advice to inform risk forecasting and mitigation as well as adaptation strategies in various forums such as 1) the Federal-Provincial-Territorial Invasive Species Task Force established by Conservation, Wildlife and Biodiversity Ministers; and 2) the Fourth Biennial Wildland Fire Canada Conference that it will co-host with a view to strengthen collaboration among Canadian fire management agencies.

The Department will also disseminate its scientific knowledge to forest pest managers across the country facing operational challenges with significant forest pest infestations. Finally, NRCan will work with stakeholders to integrate its forest science related to climate change in pan-Canadian vulnerability analyses and adaptation strategies and enable forest sector players to mainstream climate change into sustainable forest management planning.

Sub-program 3.1.4: Climate Change Adaptation

Description

Through this Sub-program, NRCan delivers an Adaptation Platform, which brings together industry and professional organizations, federal, provincial and territorial governments, and other organizations to collaborate on shared adaptation priorities. It facilitates the production and exchange of knowledge and tools that help decision makers understand the implications of a changing climate on their operations, and equips them with the tools and information needed to effectively adapt. This Sub-program also delivers scientific analysis on climate change geoscience issues affecting Canada's North (North of 60 latitude) such as resource development and infrastructure.

Budgetary Financial Resources (dollars)

2016-17 Planned Spending	2017-18 Planned Spending	2018-19 Planned Spending
2,875,054	2,875,054	2,875,054

Human Resources (FTEs)

2016-17	2017-18	2018-19
22	22	22

Performance Measurement

Expected Results	Performance Indicators	Targets	Date to Be Achieved
Key stakeholders across Canada have access to new knowledge on risks and opportunities resulting from a changing climate for decision-making	Number of new knowledge products released	20 per year	March 31, 2017

Planning Highlights

In 2016-17, it will take stock of the results achieved to date, scope continuing need for program activities and release knowledge products.

Sub-program 3.1.5: Geohazards and Public Safety

Description

To enhance the protection of Canadians from natural hazards, constant monitoring of, and effective planning for, adverse natural events are required. Such events include earthquakes, volcanic eruptions, landslides, geomagnetic storms, radiological and nuclear incidents, and tsunamis. Through the provision of hazard information and products, NRCan helps other levels of government, including international government bodies, as well as the private sector and professional organizations to prepare for and mitigate natural disasters. This work also meets NRCan's obligation for ongoing nuclear test monitoring under the Comprehensive Nuclear Test Ban Treaty. This Sub-program comprises a research component, which disseminates risk-related information to support the response, recovery and preparedness phases of emergency management.

Budgetary Financial Resources (dollars)

2016-17 Planned Spending	2017-18 Planned Spending	2018-19 Planned Spending
22,992,927	15,839,920	14,875,744

The decline in planned spending from 2016-17 to 2018-19 is primarily due to the decreasing funding profile of the Enhancing National Earthquake Monitoring program which focuses on implementing new technology and scientific advances to enhance the national capability to protect Canadians from the impact of earthquake. The program will be completed by 2018-19.

Human Resources (FTEs)

2016-17	2017-18	2018-19
104	103	99

Performance Measurement

Expected Results	Performance Indicators	Targets	Date to Be Achieved
Governments, private sector and regulatory bodies access NRCan's hazard information, products and services	Number of requests for NRCan geohazard information, knowledge products or services by government, private sector, including media, and professional organizations in Canada	55 per year	March 31, 2017

Planning Highlights

Canadian Hazards Information Service –NRCan is undertaking a major refreshment of the technology in the National Seismograph Network, including procurement of modern seismometers and digitizers and their installation across the national seismograph network, replacing obsolete equipment, to ensure robust monitoring and rapid alerting for earthquakes in Canada.

Public Safety Geoscience Program – NRCan will: 1) collaborate with emergency management stakeholders to simulate a credible earthquake event and associated impacts and consequences for a cross-border exercise in BC; and 2) work with Public Safety Canada to develop guidance tools and/or documents for natural hazard risk assessment.

Program 3.2: Landmass Information

Description

Public, academic and private sectors as well as Canadians rely on up-to-date, comprehensive and accessible landmass information to make sound socio-economic and environmental decisions. This Program provides open access to Canada's fundamental geomatics framework and information system, including accurate three-dimensional positioning, high-resolution satellite imagery and other remote sensing products, legal (boundary) surveys, mapping and other analysis applications. In addition, it delivers logistics support in the North and regulatory oversight for a robust property system framework on Canada Lands.

Budgetary Financial Resources (dollars)

2016-17 Main Estimates	2016-17 Planned Spending	2017-18 Planned Spending	2018-19 Planned Spending
75,092,662	75,092,662	51,156,481	47,898,096

The decline in planned spending from 2016-17 to 2018-19 is primarily due to the declining funding profile of the UNCLOS program (Mapping the North Pole).

Human Resources (FTEs)

2016-17	2017-18	2018-19
408	390	385

There is no material fluctuation in planned FTEs from 2016-17 to 2018-19 since most of the decline in funding for UNCLOS is related to operating expenses.

Performance Measurement

Expected Results	Performance Indicators	Targets	Date to Be Achieved
Stakeholders discover and access geospatial assets to inform decision-making, reporting, operations and research	Satisfaction with discoverability and access to geospatial assets	Improvement over previous reporting period on satisfaction with overall discovery and access	March 31, 2018
	Percentage of clients who are satisfied with Canada's legal boundary framework for effective governance, economic and social development	Three baselines complete for client satisfaction surveys (scheduled 1 bi-annually, rotational amongst key client groups: Aboriginal, other government departments, industry)	March 31, 2019
Public, private sector and academia use accurate, Government of Canada geo-information for decision-making	Evidence identifying that Canada Lands Survey System activities are meeting stakeholder needs	At least one source of evidence from First Nations, other government departments and industry for the Canada Lands Survey System	March 31, 2018
Polar Continental Shelf Program (PCSP) clients receive cost-effective logistics support needed to conduct field work safely in Canada's Arctic and Sub-arctic regions	Level of client satisfaction with mix, quality and cost of support received	85% of clients are either satisfied or very satisfied	March 31, 2017

Planning Highlights

Individual sub-programs provide specific details on how key activities support expected result.

Sub-program 3.2.1: Essential Geographic Information

Description

This Sub-program ensures access to accurate, authoritative and assured satellite imagery, survey and mapping data, as well as applications and other thematic products or specialty tools to government and non-government users. This Sub-program also maintains geodetic networks to monitor Earth dynamics and provide access to Canada's fundamental reference system for the measurement of latitude, longitude and elevation. A geodetic reference system consistent with international standards is essential to exploit the full capability of Earth Observation and precise satellite positioning (e.g., GPS).

Budgetary Financial Resources (dollars)

2016-17 Planned Spending	2017-18 Planned Spending	2018-19 Planned Spending
28,279,990	28,258,662	28,269,734

Human Resources (FTEs)

2016-17	2017-18	2018-19
257	250	248

Performance Measurement

Expected Results	Performance Indicators	Targets	Date to Be Achieved
Public, private sector and academia access authoritative, reliable and accurate geodetic, geographic and geospatial information for the management of natural resources and lands	Number of times geospatial information tools and services are accessed	5% annual increase from 2013-14	March 31, 2017
Governments and other program stakeholders can access a suite of up-to-date, comprehensive geospatial assets	Average time elapsed from image receipt to the staging of emergency flood response products	4 hours or less	March 31, 2017
	Percentage of landmass foundational data collections with renewed coverage	15% of all data collections are updated or newly produced	March 31, 2017
Stakeholders access georeferencing at the highest accuracy levels through a common coordinate reference system consistent with international standards	Number of times geodetic tools and services are accessed	Same or increased from past fiscal year	March 31, 2017

Planning Highlights

Radarsat – NRCan will provide near-real-time flood extent mapping products and services – derived from the geoprocessing of Radarsat-2 and ancillary information – to emergency management organizations, supporting Canada's coordinated efforts to respond to emergencies.

Geographical Names Board of Canada's 2014-2020 Strategic Plan – NRCan will continue engaging with provinces, territories and other federal departments to provide expert advice to Canada's authoritative geographical names, with a particular emphasis on Indigenous and undersea naming and improvement of systems.

GeoBase – NRCan will work with provinces, territories and other federal departments for the development and integration of accurate and authoritative geospatial data, which includes information about Canada, its resources and infrastructure. This information will be disseminated by NRCan's FGP, enabling the federal government and all Canadians to access location information in a timely and efficient manner.

Launch of RADARSAT Constellation Mission – In advance of its launch currently scheduled for 2018, NRCan will develop and provide a new geospatial tool to generate simulated RCM data. This tool will enable other departments to develop their own value-added processes, improving their readiness to exploit data from this new Canadian satellite.

Clear positioning reference system – NRCan will enhance online tools and services for client positioning in Canada's fundamental reference system for latitude, longitude and height by 1) densifying Global Navigation Satellite System (GNSS) satellite monitoring stations and incorporating resulting data into improved tools for transformation of coordinates over time to account for the dynamic Earth, and 2) incorporating multiple constellations of GNSS satellites (i.e. fully utilize, GALILEO, etc.) in precise positioning services (Phase 1 in 2016-17).

Sub-program 3.2.2: Canada's Legal Boundaries

Description

Through this Sub-program, NRCan ensures boundary certainty by proper maintenance of the Canada-US international boundary for law enforcement, land administration, customs and immigration, and transboundary resource management; effective boundary surveys of Indigenous settlement lands to meet Canada's obligations under land claim settlement legislation and treaties; and statutory registration of legal surveys on Canada Lands (the North, Canada's offshore area, Indigenous Lands and National Parks), essential to the creation of legal property boundaries. The boundary certainty provided by NRCan through this Sub-program enables

effective management of Canada lands and collaboration across jurisdictions, which advance the interests of Canada's natural resource sectors, both domestically and internationally.

Budgetary Financial Resources (dollars)

2016-17 Planned Spending	2017-18 Planned Spending	2018-19 Planned Spending
13,620,497	12,990,340	11,783,723

The decline in planned spending from 2016-17 to 2018-19 is primarily due to the sunset of a transfer from INAC (previously Aboriginal And Northern Development Canada) for the purposes of the First Nations Land Description Reports program.

Human Resources (FTEs)

2016-17	2017-18	2018-19
108	105	102

Performance Measurement

Expected Results	Performance Indicators	Targets	Date to Be Achieved
Statutory obligations, including interdepartmental commitments, are achieved in support of boundary certainty for Canada (including the Canada-US boundary) and First Nation Lands	Percentage completion of Canadian obligations for Canada-US boundary maintenance requirements established in the semi-annual Commissioners' Meeting Records of Decision	100%	March 31, 2017
Statutory obligations, including interdepartmental commitments, are achieved in support of boundary certainty for Canada (including the Canada-US boundary) and First Nation Lands	Percentage of statutory obligations and interdepartmental commitments achieved as defined in the legislation and agreements for Canada and First Nation lands	100%	March 31, 2017

Planning Highlights

Survey obligations – NRCan will complete 100% of annual survey obligations as defined in land claim legislation and agreements for Northern Canada and for First Nations Land Management and Additions to Reserves in southern Canada. This work will help ensure boundary certainty and accuracy for First Nations and other Canadians living in those areas.

Moving to digital records – NRCan is strengthening how it provides statutory registration of legal surveys on Canada Lands. Building on efficiencies gained in 2015-16 when it implemented

its first phase in the electronic recording of survey plans, NRCan is transitioning to maintenance of digital records instead of utilizing a vault of over 100,000 documents for its daily operations.

Sub-program 3.2.3: Polar Continental Shelf Logistics Support

Description

Through its Polar Continental Shelf Program (PCSP), NRCan coordinates logistics for Canadian government agencies, provincial, territorial and northern organizations, universities and independent groups conducting research, particularly in Canada's North. Through this work, NRCan supports science and government priorities and contributes to the exercise of Canadian Arctic sovereignty. PCSP services include air transportation to and from remote field camps throughout the Canadian Arctic, field equipment and vehicles across Canada, and fuel for aircraft, equipment and camps. They also include meals, accommodations and working space (including a multi-purpose laboratory) at the PCSP facility in Resolute, Nunavut, and a communications network that links the PCSP with science teams in field camps dispersed throughout the Canadian Arctic.

Budgetary Financial Resources (dollars)

2016-17 Planned Spending	2017-18 Planned Spending	2018-19 Planned Spending
8,335,696	8,619,268	7,338,588

The decline in planned spending from 2016-17 to 2018-19 is primarily due to the sunset of a transfer from INAC for the purposes of the Polar Continental Shelf Program (Canada High Arctic Research Station).

Human Resources (FTEs)

2016-17	2017-18	2018-19
33	33	33

There is no material fluctuation in planned FTEs from 2016-17 to 2018-19 since the INAC transfer is related to operating expenses.

Performance Measurement

Expected Results	Performance Indicators	Targets	Date to Be Achieved
Canadian Arctic researchers and federal government departments and agencies receive the requested PCSP field logistics support	Percentage of valid requests for logistics coordination services that were supported by PCSP	95%	March 31, 2017

Planning Highlights

Polar Continental Shelf – NRCan will provide requested field logistics to more than 100 projects from government departments, the Polar Knowledge Canada's Science and Technology Program, and universities conducting scientific research in the Arctic, as well as to the Canadian Armed Forces Arctic Training Centre Program.

Sub-program 3.2.4: United Nations Convention on the Law of the Sea

Description

Through this Sub-program, NRCan conducts seabed and seismic surveys to compile accurate coordinates on the limits of the continental shelf area, as well as to support Global Affairs Canada with the presentation, interpretation and defence of the scientific evidence included in the formal submission. Canada aims to secure international recognition for this precisely determined extended area over which it may exercise sovereign rights over the natural resources of the seabed and subsoil.

Budgetary Financial Resources (dollars)

2016-17 Planned Spending	2017-18 Planned Spending	2018-19 Planned Spending
24,856,479	1,288,211	506,051

The decline in planned spending from 2016-17 to 2018-19 is primarily due to the declining funding profile of the UNCLOS program (Mapping the North Pole) with the vast majority reducing the operating vote.

Human Resources (FTEs)

2016-17	2017-18	2018-19
10	2	2

The decline in planned FTEs from 2016-17 to 2018-19 is related to the decline in planned spending for this sub-program.

Performance Measurement

Expected Results	Performance Indicators	Targets	Date to Be Achieved
Global Affairs Canada (GAC) presents a comprehensive, scientifically sound submission for Canada's claim to the Commission on the Limits of the Continental Shelf (CLCS) beyond 200 nautical miles	Percentage of required scientific and technical data and analysis delivered to GAC for the presentation of Canada's claim to the CLCS beyond 200 nautical miles	100%	March 31, 2018

Planning Highlights

Canada's Continental Limits – NRCan received funds to add a third year survey expedition in the Arctic Ocean in 2016-17. Scientific personnel from NRCan, DFO, ECCC, National Defence (DND) and the Canadian Armed Forces will be involved in a major seabed survey for August-September 2016. NRCan personnel will use their survey period on the two icebreakers to acquire seismic and bathymetric data to define the outer limit of Canada's extended continental margin as defined under Article 76 of UNCLOS. Concurrently, NRCan will analyze geological and bathymetric data collected from 2014-16 in support of the Arctic Ocean submission to the CLCS. Working with GAC and DFO, NRCan will prepare a formal presentation for the Atlantic Ocean submission, and present it after the election of CLCS Commissioners in 2017.

Internal Services

Description

Internal Services are groups of related activities and resources that are administered to support the needs of programs and other corporate obligations of an organization. Internal services include only those activities and resources that apply across an organization, and not those provided to a specific program. The groups of activities are Management and Oversight Services; Communications Services; Legal Services; Human Resources Management Services; Financial Management Services; Information Management Services; Information Technology Services; Real Property Services; Materiel Services; and Acquisition Services.

Budgetary Financial Resources (dollars)

2016-17 Main Estimates	2016-17 Planned Spending	2017-18 Planned Spending	2018-19 Planned Spending
184,517,755	184,517,755	137,682,086	136,796,541

The decline in planned spending from 2016-17 to 2018-19 is primarily due to the expiry of budgetary spending authorities in 2016-17 for the Federal Infrastructure initiative, specifically reducing the operating and capital vote.

Human Resources (FTEs)

2016-17	2017-18	2018-19
939	931	931

Given the nature of the decline in planned spending, there is no material fluctuation in planned FTEs from 2016-17 to 2018-19.

Planning Highlights

Openness and transparency – NRCan will take steps to increase its capacity to engage with stakeholders, share its knowledge and report on its performance. It will:

- Establish a **Stakeholder Engagement Unit** to provide expert advice and support to senior officials and the Minister on stakeholder engagement;
- Support the **Open Government Initiative** by: 1) proceeding with Federal Science Library integration; 2) implementing the Federal Geospatial Platform's interface with the Open Government portal; 3) increasing access to its scientists; and
- Strengthen its ability to measure and report on its results through improvements to the framework such the **Performance Measurement Framework**.

Increasing operational efficiency – NRCan is continuously looking at ways to increase its efficiency. It will:

- Complete $45 million in investments to conduct major repairs and upgrading of federal laboratories and research facilities at 15 locations across Canada, as part of the **Federal Infrastructure Initiative**;
- Pilot risk-based approaches for staffing and classification; and
- Increase information technology security by implementing additional measures

Policy, science and management excellence – NRCan is setting the foundation for future policy, science and management excellence. It will:

- Develop a **medium-to-long term policy research** agenda to support evidence-based decision making; produce at least 4 research papers; and strengthen science, policy and program entrepreneurship by supporting the use of new policy instruments;
- Complete its review of current **talent management practices**, address gaps identified and continue to experiment with new approaches to developing talent; and
- Strengthen capacity on **intelligent risk-taking.**

Section III: Supplementary Information

Future-Oriented Statement of Operations

The future-oriented condensed statement of operations provides a general overview of NRCan's operations. The forecast of financial information on expenses and revenues is prepared on an accrual accounting basis to strengthen accountability and to improve transparency and financial management.

Because the future-oriented condensed statement of operations is prepared on an accrual accounting basis, and the forecast and planned spending amounts presented in other sections of the Report on Plans and Priorities are prepared on an expenditure basis, amounts differ.

A more detailed future-oriented statement of operations and associated notes, including a reconciliation of the net cost of operations to the requested authorities, can be found on NRCan's website.

Future-Oriented Condensed Statement of Operations
For the Year Ended March 31
(dollars)

Financial Information	2015–16 Estimated Results	2016-17 Planned Results	Difference
Total expenses	1,626,522,447	1,637,636,487	11,114,040
Total revenues	32,339,648	38,870,110	6,530,462
Net cost of operations	1,594,182,799	1,598,766,377	4,583,578

The increase of $11 million in expenses between years is mainly explained by:

- a $172 million increase in Statutory Programs – Atlantic Offshore due to fluctuations in oil and gas prices, production levels, exchange rates and operators' costs; offset by
- a $122 million decrease in Responsible Natural Resource Management related in most part to a reduction in expenses under the Nuclear Legacy Liabilities Program and under the Historic Waste Program. Effective September 13, 2015, NRCan's delivery of these Programs has been transferred to AECL. This is part of the AECL restructuring and consolidation in the delivery of existing federal radioactive waste management programs; and

- a $36 million decrease due in most part to the sunsetting of various programs in Energy-Efficient Practices and Lower-Carbon Energy Sources and in Market Access and Diversification.

The increase of $7 million in revenues between years is mainly explained by:

- an increase of $3 million in Revenue from services of a non-regulatory nature for vote netted revenue and $3 million in Revenue from services of a regulatory nature for the Geomatics Canada Revolving Fund.

The charts presenting the distribution by program of NRCan's total forecast expenses for 2015-16 and planned expenses for 2016-17 on an accrual basis are available on NRCan's website.

Supplementary Information Tables

The supplementary information tables listed in the *2016–17 Report on Plans and Priorities* can be found on NRCan's website.

- Departmental Sustainable Development Strategy;
- Details on Transfer Payment Programs of $5 Million or More;
- Disclosure of Transfer Payment Programs Under $5 Million;
- Horizontal Initiatives;
- Status Report on Transformational and Major Crown Projects;
- Upcoming Internal Audits and Evaluations Over the Next Three Fiscal Years;
- Up-Front Multi-Year Funding; and
- User Fees and Regulatory Charges.

Tax Expenditures and Evaluations

The tax system can be used to achieve public policy objectives through the application of special measures such as low tax rates, exemptions, deductions, deferrals and credits. The Department of Finance Canada publishes cost estimates and projections for these measures annually in the *Tax Expenditures and Evaluations*[xii] publication. The tax measures presented in the *Tax Expenditures and Evaluations* publication are the responsibility of the Minister of Finance.

Section IV: Organizational Contact Information

Natural Resources Canada

580 Booth Street

Ottawa, Ontario

K1A 0E4

Appendix: Definitions

appropriation: Any authority of Parliament to pay money out of the Consolidated Revenue Fund.

budgetary expenditures: Include operating and capital expenditures; transfer payments to other levels of government, organizations or individuals; and payments to Crown corporations.

Departmental Performance Report: Reports on an appropriated organization's actual accomplishments against the plans, priorities and expected results set out in the corresponding Reports on Plans and Priorities. These reports are tabled in Parliament in the fall.

full-time equivalent: Is a measure of the extent to which an employee represents a full person-year charge against a departmental budget. Full-time equivalents are calculated as a ratio of assigned hours of work to scheduled hours of work. Scheduled hours of work are set out in collective agreements.

Government of Canada outcomes: A set of 16 high-level objectives defined for the government as a whole, grouped in four spending areas: economic affairs, social affairs, international affairs and government affairs.

Management, Resources and Results Structure: A comprehensive framework that consists of an organization's inventory of programs, resources, results, performance indicators and governance information. Programs and results are depicted in their hierarchical relationship to each other and to the Strategic Outcome(s) to which they contribute. The Management, Resources and Results Structure is developed from the Program Alignment Architecture.

non-budgetary expenditures: Include net outlays and receipts related to loans, investments and advances, which change the composition of the financial assets of the Government of Canada.

performance: What an organization did with its resources to achieve its results, how well those results compare to what the organization intended to achieve and how well lessons learned have been identified.

performance indicator: A qualitative or quantitative means of measuring an output or outcome, with the intention of gauging the performance of an organization, program, policy or initiative respecting expected results.

performance reporting: The process of communicating evidence-based performance information. Performance reporting supports decision making, accountability and transparency.

planned spending: For Reports on Plans and Priorities (RPPs) and Departmental Performance Reports (DPRs), planned spending refers to those amounts that receive Treasury Board approval by February 1. Therefore, planned spending may include amounts incremental to planned expenditures presented in the Main Estimates.

A department is expected to be aware of the authorities that it has sought and received. The determination of planned spending is a departmental responsibility, and departments must be able to defend the expenditure and accrual numbers presented in their RPPs and DPRs.

plans: The articulation of strategic choices, which provides information on how an organization intends to achieve its priorities and associated results. Generally a plan will explain the logic behind the strategies chosen and tend to focus on actions that lead up to the expected result.

priorities: Plans or projects that an organization has chosen to focus and report on during the planning period. Priorities represent the things that are most important or what must be done first to support the achievement of the desired Strategic Outcome(s).

program: A group of related resource inputs and activities that are managed to meet specific needs and to achieve intended results and that are treated as a budgetary unit.

Program Alignment Architecture: A structured inventory of an organization's programs depicting the hierarchical relationship between programs and the Strategic Outcome(s) to which they contribute.

Report on Plans and Priorities: Provides information on the plans and expected performance of appropriated organizations over a three-year period. These reports are tabled in Parliament each spring.

results: An external consequence attributed, in part, to an organization, policy, program or initiative. Results are not within the control of a single organization, policy, program or initiative; instead they are within the area of the organization's influence.

Strategic Outcome: A long-term and enduring benefit to Canadians that is linked to the organization's mandate, vision and core functions.

sunset program: A time-limited program that does not have an ongoing funding and policy authority. When the program is set to expire, a decision must be made whether to continue the program. In the case of a renewal, the decision specifies the scope, funding level and duration.

target: A measurable performance or success level that an organization, program or initiative plans to achieve within a specified time period. Targets can be either quantitative or qualitative.

whole-of-government framework: Maps the financial contributions of federal organizations receiving appropriations by aligning their Programs to a set of 16 government-wide, high-level outcome areas, grouped under four spending areas.

Endnotes

[i] **Atomic Energy of Canada Ltd,** http://www.aecl.ca/en/home/default.aspx
[ii] **National Energy Board,** http://www.neb.gc.ca/clf-nsi/rcmmn/hm-eng.html
[iii] **Canadian Nuclear Safety Commission,** http://www.cnsc-ccsn.gc.ca/eng/
[iv] **Canada-Newfoundland and Labrador Offshore Petroleum Board,** http://www.cnlopb.nl.ca/
[v] **Canada-Nova Scotia Offshore Petroleum Board,** http://www.cnsopb.ns.ca/
[vi] **Northern Pipeline Agency,** http://npa.gc.ca/home
[vii] ***Department of Natural Resources Act***, http://laws-lois.justice.gc.ca/eng/acts/N-20.8/
[viii] ***Forestry Act***, http://laws-lois.justice.gc.ca/eng/acts/F-30/
[ix] ***Resources and Technical Surveys Act***, http://laws-lois.justice.gc.ca/eng/acts/R-7/

[xi] ***2015–16 Main Estimates***, http://publiservice.tbs-sct.gc.ca/ems-sgd/esp-pbc/me-bpd-eng.asp
[xii] ***Tax Expenditures and Evaluations*** **publication,** http://www.fin.gc.ca/purl/taxexp-eng.asp